The psychological experience and treatment of eating disorders.

By

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A thesis submitted to the University of Birmingham in partial fulfilment of the degree of

DOCTORATE OF CLINICAL PSYCHOLOGY

Volume I

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Dedication

I would like to dedicate this doctorate to my friends and family who have been a huge support throughout the course.

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I would like to thank:

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Thesis overview

This thesis is submitted in partial fulfilment of the requirements of the degree of Doctorate of Clinical Psychology at the University of Birmingham. It comprises both research and clinical components of the course.

Volume I of the thesis comprises two research papers. The first is a literature review which examines the efficacy of group CBT in the treatment of bulimia nervosa and binge eating disorder. A total of 22, randomised controlled trials were included in the review and each was discussed critically in terms of their methodological quality and findings. Group CBT was compared to waiting list control, individual CBT, self-help CBT, other modes of therapy and CBT with an additional component. The review discusses the benefits of using group CBT in the treatment of bulimia nervosa and binge eating disorder as well as the limitations of the data and areas for future research. The word count for the literature review is 7165.

The second paper is an empirical study which explores the experience of binge eating and loss of control for individuals with bulimia nervosa. Five women with either a current or a past diagnosis of bulimia nervosa were interviewed specifically about their experiences. Interpretative Phenomenological Analysis was used to analyse the data and five super-ordinate themes emerged. The participants described times when they are not binge eating (*'The meaning of food: The need for controlled eating'*); interpretations of what leads to a binge (*'Embodied and contextual accounts of bingeing'*); the difficulties of stopping a binge (*'During the binge: the point of no return'*); loss of control as a conscious and subconscious process (*'Shifting in and out of a dissociative state'*) and finally *'The negative consequences of bingeing'*. The paper discusses the findings in relation to existing literature, clinical implications and directions for future

research. An evaluation of the study is also presented. The word count for the empirical paper is 8253.

Volume II comprises the clinical component and contains five Clinical Practice Reports (CPRs) which present examples of clinical work completed over the course of training. CPR1 presents the case of 'Mary' a 56 year old lady with a mild learning disability and challenging behaviour. Her difficulties are formulated from both behavioural and psychodynamic perspectives. CPR2 is a service evaluation on annual health checks for individuals with learning disabilities. A single-case experimental design is described in CPR3 which evaluates a cognitive-behavioural intervention for 'Tony', a 40 year old man with obsessive compulsive disorder. CPR4 presents a case study of a cognitive-behavioural formulation and intervention for a 76 year man with depression and self-harm. Finally, CPR5 is an abstract of the case study given as an oral presentation. The case describes a cognitive-behavioural formulation and intervention for a 15 year old girl presenting with low mood at a CAMHS community team. Pseudonyms have been used for all service-users to maintain anonymity.

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Volume II: CLINICAL COMPONENT

CLINICAL PRACTICE REPORT 4

Group CBT for the treatment of Bulimia Nervosa and/or Binge Eating Disorder: A review of the literature.

Paper submitted to Clinical Psychology Review

ABSTRACT

Objective: To complete the first systematic review examining the efficacy of Group Cognitive Behaviour Therapy (GCBT) for both bulimia nervosa (BN) and/or binge eating disorder (BED).

Method: Three databases were searched. Articles were included if there was a control condition, participants were randomly allocated, and if they were published in the English language. Twenty two papers were included in the review.

Results: GCBT is superior to waiting list control (WLC) for both BN and BED, it seems to be as efficacious as individual CBT (ICBT) in the longer term, it seems to be superior to guided self-help for BED and is as efficacious as other treatment modalities delivered in group formats.

Discussion: Overall the literature seems to support the use of GCBT in the treatment of BED and BN, particularly compared to WLC. Further evidence is required to determine the efficacy of GCBT compared to ICBT. There is also a need for higher quality research to be completed in this field in order to draw more sound conclusions. The findings have important clinical implications given the pressures on health economies.

1.0 INTRODUCTION

The Diagnostic and Statistical Manual of Mental Disorders (5th Ed.; DSM-V; American Psychiatric Association, 2013) defines bulimia nervosa (BN) as the experience of recurrent episodes of binge eating, with a sense of a lack of control over such eating and inappropriate compensatory behaviours to control weight gain, such as self-induced vomiting. For a diagnosis of BN, these symptoms must have been experienced once a week for the last three months. Individuals with BN are typically young females. Prevalence rates are estimated to be between 1-2% (DSM-V; Gordon, 1990; Hudson, Hiripi, Pope & Kessler, 2007; Smink, van Hoeken & Hoek, 2012). People with BN are likely to have co-morbid physical and mental health problems including oral difficulties, nutritional deficiencies, depression, anxiety and substance misuse (DSM-V; Kerr, Skok & McLaughlin, 1991; Vaught et al., 2008).

In contrast to DSM-IV binge eating disorder (BED) now has its own diagnostic criteria outlined in DSM-V. BED is defined similarly to BN as the experience of recurrent episodes of binge eating and a sense of a lack of control over such eating with one difference being that to be diagnosed with BED the binge eating episodes should also include three out of five of a list of possible symptoms[1]. Those with BED should also show marked distress over the binge episodes. Episodes should occur once a week for at least three months. Individuals with BED are likely to suffer from obesity, low self-esteem, depression and physical health problems (Ackard, Fulkerson & Neumark-Sztainer, 2011; Skinner, Haines, Austin & Field, 2012; Wilfley, Wilson & Agras, 2003). BED is thought to be the most common of all the eating disorders, with a

[1] 1. Eating much more rapidly than normal.
2. Eating until feeling uncomfortably full.
3. Eating large amounts of food when not feeling physically hungry.
4. Eating alone because of feeling embarrassed by how much one is eating.
5. Feeling disgusted with oneself, depressed, or very guilty afterward.

prevalence rate of between 1-3.5% (Grucza, Przybeck & Cloninger, 2007; Hoek & van Hoeken, 2003; Smink et al., 2012).

Cognitive-Behaviour Therapy (CBT) is the most widely researched treatment for both BN and BED compared with other psychological therapies (Dingemans, Bruna & van Furth, 2002; Iacovino, Gredysa, Altman & Wilfley, 2012; Wilson, Grilo & Vitousek, 2007). In two reviews of treatment efficacy for BN, Shapiro et al. (2007) and Hay, Bacaltchuk & Strefano (2004) both found that, while Interpersonal Therapy (IPT) was as effective as CBT in the long-term, in the short-term CBT produced greater change. In a follow-up review, Hay (2013) found that CBT remains the best empirically supported therapy for the treatment of BN. In the UK, CBT is the 'gold standard' treatment and is recommended by the NICE guidelines (National Institute for Clinical Excellence, 2004). IPT is recommended as an alternative, however, as suggested in the literature, NICE recommends that service-users should be made aware that this treatment takes longer to achieve results comparable to those seen in CBT.

Similarly for BED, NICE (2004) also recommends CBT as the treatment of choice, again with an alternative of either IPT or modified Dialectical Behaviour Therapy (DBT). However, in contrast to BN it has been found that there are fewer studies examining the treatment of BED which are of sound methodology, although these are gradually increasing (Brownley, Berkman, Sedway, Lohr & Bulik, 2007; Hay, 2013; Wilson et al., 2007). In the review by Brownley et al. (2007), of the studies that were included which examined CBT, it was concluded that this treatment approach is effective in reducing binge-eating frequency. Iacovino et al. (2012) agreed with Brownley et al. but also supported the use of IPT in the treatment of BED, arguing that it is as effective as CBT. However, it is suggested that further research is required to examine the efficacy of IPT and DBT in the treatment of BED (Vocks et al., 2010).

Group therapy has long been considered a cost-effective means of intervention (Shapiro, Sank, Shaffer & Coghlan Donovan, 1982; Toseland & Siporin, 1986). Psychological difficulties for which group therapy has been found to be cost-effective include depression, anxiety, panic disorder and social phobia (Brown et al., 2011; Gould, Buckminster, Pollack, Otto & Yap, 1997; Otto, Pollack & Maki, 2000; Shapiro et al., 1982). The majority of studies examining the cost-effectiveness of group therapy have reviewed group CBT (GCBT). This was the topic of the review by Tucker and Oei (2007) who concluded that while further evidence is required to draw more sound conclusions, the initial evidence seems to be in favour of the cost-effectiveness of GCBT compared to individual CBT (ICBT) or pharmacological interventions for depression, anxiety and for working with children. While further research is required to examine the cost-effectiveness of GCBT for the treatment of eating disorders, the evidence seems to suggest that interventions delivered in a group format might be invaluable particularly given the efficiency savings health economies need to make (e.g., Department of Health, 2010).

In addition to the cost-effective benefits of group therapy, it is also important to consider other potential benefits of delivering therapy in a group format. Söchting, Wilson & De Gagné (2010) argue that group therapy can offer support, acceptance and opportunities to learn from other members. Others, however, take the opposite view. Vandereycken's (2011) review highlights the potential pit-falls of group therapy including competition, collusion and the learning of new techniques to lose weight or purge, although much of his review focussed on inpatient services for anorexia nervosa suffers. There is also the view that group therapy continues to be seen as 'inferior' to individual therapy (Söchting et al., 2010).

Given the possible benefits of GCBT for the treatment of eating disorders, but also the opposing views within the literature, it is important to determine its efficacy as a treatment

approach. Group therapy for eating disorders and, in particular BN, has been the topic of review in the past. Fettes and Peters (1992) found that individuals with BN treated with group therapy showed improvements in their bulimic symptoms post-treatment compared to those in untreated control groups. To date, however, there have been no review papers which have examined the efficacy of GCBT specifically for either BN or BED. Of those reviews which have discussed GCBT, they have done so only briefly with their main focus being on either the overall treatment of eating disorders or CBT in general (Brownley et al., 2007; Iacovino et al., 2012; Shapiro et al., 2007; Wilson et al., 2007).

The aim of the current paper, therefore, was to provide the first systematic review examining the efficacy of GCBT as a specific treatment approach for BN and BED in terms of symptom reduction. In order to do this GCBT was reviewed in comparison to waiting-list control or no treatment, any other psychological therapy, CBT delivered in a self-help format or CBT with an added component, for example spousal involvement.

2.0 METHOD

2.1 Search Strategy

Three databases were searched: Embase (1974-2013 October 07); MEDLINE (R; 1946-2013 September week 4) and PsychINFO (1806-2013 October week 1). As no other literature review has been completed examining GCBT for BN and/or BED all databases were searched to their maximum range within Ovid. The databases were searched using the following search strategy: ((“eating disorder$” OR bulimia nervosa OR binge eating disorder) AND (group adj2 CBT OR group adj2 cognitive adj2 behav$ adj2 therapy OR group adj2 intervention OR group adj2 therapy) AND random$). This resulted in a total of 313 articles. After de-duplication and English only articles were selected, 160 articles remained for inspection.

2.2 Inclusion and Exclusion Criteria

Articles were inspected and either included or excluded based on the following criteria:

2.2.1 Inclusion criteria

1. GCBT compared to at least one ‘control’ group. The control groups could be of various descriptions: waiting list control (WLC); individual CBT (ICBT); another psychotherapeutic model; CBT with added components, for example, spousal involvement; medication.
2. Participants have been randomised to conditions.
3. Any follow-up study with additional statistical analysis completed.
4. English language article.
5. Population over 16.

2.2.2 Exclusion criteria

1. Participants do not have a diagnosis of either BN or BED.
2. Therapy is not delivered in a group format, is not GCBT or there is no analysis completed on the overall outcome of the group in terms of BN or BED symptom reduction.
3. Review article, conference abstract or protocol paper.
4. No randomisation procedure
5. GCBT is included as a condition in the paper, however, other modes of treatment have been added to it, for example, pharmacology or individual therapy or adaptations have been made to the model.

2.3 Article Selection

The title and abstract of each paper was examined based on the above criteria. Where inclusion could not be determined based solely on the abstract the whole article was obtained and reviewed. Appendix 1 shows a summary of the exclusion process. The majority of articles were excluded as their participants did not have a diagnosis of either BN or BED (n=58). Articles were also excluded if GCBT was not the subject under review, if GCBT was not compared to a control group or if there was no analysis completed on the outcome of the group in terms of BN or BED symptom reduction (n=39).

A small number of papers were excluded from the review as GCBT was not assessed alone. For example, the papers by Katzman, Bara-Carril, Rabe-Hesketh, Schmidt, Troop and Treasure (2010) and Lavender, Startup, Naumann, Samarawickrema, DeJong, Kenyon, van den Eynde et al. (2012) were excluded because GCBT followed a number of individual sessions of either CBT or Motivational Enhancement Therapy (MET; Katzman et al., 2010). Including such

papers in the final analysis would make it more difficult to conclude that improvements in either BN or BED symptomology were as a result of the GCBT, rather than the added component. Finally, a paper by Mitchell, Pyle, Pomeroy, Zollman, Crosby, Seim, Eckert and Zimmerman (1993) was carefully considered but excluded on the basis that each of its conditions, although based on GCBT, had a slightly different emphasis. There was no control condition of 'pure' GCBT included in the paper.

Following the search of the three databases 18 papers were eligible for inclusion in the review. The reference list of each paper was examined and a further four papers were included.

2.4 Article Review

A total of 22 papers were selected for review. The most commonly reported outcome measure was binge eating frequency for BN and BED and purge frequency for BN. Therefore these measures were used to assess the outcome of GCBT when compared to a control group for these disorders.

The methodological quality of each paper was also reviewed based on the criteria described by van Tulder, Furlan, Bombardier, and Bouter (2003). Although these criteria were originally formulated to support systematic reviews examining back pain, they have also been used in other fields (for example, Lemmens, Oenema, Klepp, Henriksen & Brug, 2008; Rayner, Price, Evans, Valsraj, Hotopf & Higginson, 2011). van Tulder et al. (2003) proposed 11 criteria for assessing quality. Only 9 are included in the current review and can be found in table 1. It was decided not to include '*was the patient blinded to the intervention?'* in the quality analysis because this was not a realistic aspiration of these studies. '*Was the care provider blinded to the*

intervention?' was similarly dropped *post hoc* because 'don't know' was answered for all studies (van Tulder et al., 2003).

van Tulder et al. (2003), suggest that only articles which answer 'yes' to 50% or more on their criterion list should be included in systematic reviews. Given that the current systematic review is the first of its kind, all eligible articles have been included, regardless of whether they meet the proposed 50% cut-off, in order to determine the quality of the literature in this field. Each article will, however, be given a score of higher (five or more out of the nine criterion points) versus lower quality.

2.4.1 Methodological Quality.

A summary of the results of the quality criteria assessment for all 22 articles can be seen in Table 1.

41% of articles were classed as being of higher quality (Chen, Touyz, Beumont, Fairburn, Griffiths, Butow, Russell, et al., 2003; Hilbert, Bishop, Stein, Tanofsky-Kraff, Swenson, Robinson Welch & Wilfley, 2012; Lee & Rush; 1986; Peterson, Mitchell, Crow, Crosby & Wonderlich, 2009; Ricca, Castellini, Mannucci, Lo Sauro, Ravaldi, Rotella & Faravelli, 2010; Tasca, Ritchie, Conrad, Balfour, Gayton, Lybanon & Bissada, 2006; Telch, Agras, Rossiter, Wilfley & Kenardy, 1990; Wilfley, Agras, Telch, Rossiter, Schneider, Golomb Cole, Sifford et al., 1993; Wilfley, Robinson Welch, Stein, Borman Spurrell, Cohen, Saelens, Zoler Dounchis et al., 2002). The most commonly met criteria were C, G, J and K (see table 1), although where these papers did well in comparison to the poorer quality papers was in reporting the compliance to treatment rates and in completing intent-to-treat analyses.

The remaining 13 articles (59%) were therefore classed as being of lower quality. The criteria which commonly scored the worse were A, B, F and H, although these articles did particularly well on the reporting of co-interventions.

In terms of examining the quality of the literature overall, table 1 indicates that results are mixed. While it can be seen that all studies report on three or more of the quality criteria, there are a number which have either not included enough information or have performed poorly on the criteria in question. Each criterion point will be reviewed in turn. In terms of the randomisation process, the majority of studies merely state that randomisation has taken place and do not describe the procedure for completing it. The second criterion point refers to allocation concealment and whether the individual responsible for allocation is blinded to the characteristics of the participant they are allocating. Only two studies (9%) have described this procedure in their paper. Given the omission of these two points in the majority of papers it is difficult to conclude whether the literature in this field is made up of well conducted randomised control trials.

The third criterion point (*were the groups similar at baseline regarding the most important prognostic indicators?*) had a fairly positive response rate, with only one article not reporting on this and four papers having groups which differed at baseline. The blinding of outcome assessors was not reported in the majority of studies included in this review. However, the majority of studies did avoid co-interventions. Compliance was not reported upon in most papers but dropout rates were fair, with over half of the included studies having an adequate dropout rate. All studies completed outcome assessments at similar times and intent-to-treat analyses were completed in 15 (68%) articles.

Table 1: Methodological quality of the articles included for review.

	A. Was the method of randomisation adequate?	B. Was the treatment allocation concealed?	C. Were the groups similar at baseline regarding the most important prognostic indicators?	F. Was the outcome assessor blinded to the intervention?	G. Were co interventions avoided or similar?	H. Was the compliance acceptable in all groups?	I. Was the drop-out rate described and acceptable?	J. Was the timing of the outcome assessment in all groups similar?	K. Did the analysis include an intention-to-treat analysis?	Score
Agras et al. (1995)	?	?	✗	?	✓	?	✓	✓	✓	4/9
Bailer et al. (2004)	?	?	✗	?	✗	✓	✗	✓	✓	3/9
Chen et al. (2003)	✓	?	✓	✗	✓	?	✗	✓	✓	5/9
Eldridge et al. (1997)	?	?	✓	?	✓	?	✓	✓	✗	4/9
Gorin et al (2003)	?	?	✓	?	✗	✓	✗	✓	✓	4/9
le Grange et al (2002)	?	?	✓	?	✓	?	✗	✓	✓	4/9
Hilbert et al (2012)	?	?	✓	?	?	✓	✓	✓	✓	5/9
Jacobi et al (2002)	?	?	✓	?	✓	?	✗	✓	✓	4/9
Lee & Rush (1986)	✓	?	✓	?	✓	✓	✓	✓	✓	7/9
Peterson et al. (1998)	?	?	✗	?	✓	?	✓	✓	✗	3/9
Peterson et al. (2001)	?	?	✗	?	✓	?	✓	✓	✗	3/9
Peterson et al. (2009)	✓	✓	✓	✓	✓	?	✗	✓	✓	7/9
Ricca et al. (2010)	✓	✓	✓	✓	✓	?	✓	✓	✓	8/9
Schlup et al., (2009)	✓	?	?	?	✓	✗	✓	✓	✗	4/9
Shapiro et al. (2007)	✓	?	✗	?	✓	?	✗	✓	✓	4/9
Shelley-Ummenhofer & MacMillan, 2007)	?	?	✓	?	✓	?	✓	✓	✗	4/9
Tantillo & Sanftner (2003)	?	?	✓	✗	?	?	✓	✓	✗	3/9
Tasca et al. (2006)	?	?	✓	✓	✓	✓	✓	✓	✓	7/9
Telch et al. (1990)	?	?	✓	?	✓	✓	✓	✓	✓	6/9
Wilfley et al. (1993)	?	?	✓	✗	✓	✓	✗	✓	✓	5/9
Wilfley et al (2002)	?	?	✓	✗	✓	✓	✓	✓	✓	6/9
Wolf & Crowther (1992)	?	?	✓	?	✓	?	✓	✓	✗	4/9

Table 2: Summary of final 22 papers included for review

Author, year and country	Participants	Interventions	Outcome: end of treatment	Outcome: follow-up	Quality
Agras et al. (1995; USA) Aim: Is CBT followed by IPT or CBT followed by weight loss therapy more effective than WLC? *Note:* Only results from the CBT intervention will be reviewed here.	BED; N=50 (F=43; M=7)	GCBT; N=39 WLC; N=11	GCBT had greater abstinence rates (no statistical analysis completed).	No follow-up.	Lower
Bailer et al. (2004; Austria) Aim: Is a German version of a self-help manual as effective as GCBT?	BN; N=81 (gender unknown)	GSH; N=40 GCBT; N=41	Significant results for both groups on binge/purge frequency, abstinence and remission rates.	*1 year:* Groups similar on abstinence and remission rates (intent-to-treat). Increase in abstinence rates for GSH compared to end of treatment (completer analysis).	Lower
Chen et al. (2003; Australia) Aim: To compare individual with GCBT.	BN; N=60 (all female)	ICBT; N=30 GCBT; N=30	Significant reductions for both groups on binge/purge frequency. Significantly more participants who received GCBT met criteria for BN than received ICBT.	*3 and 6 months:* Groups similar on binge/vomiting frequency, abstinence or improvements rates or BN diagnosis.	Higher
Eldridge et al. (1997; USA) Aim: Will extending CBT benefit participants classed as non-responders of CBT.	BED; N=46 (F=44; M=2)	GCBT; N=36 WLC; N=10	Significant reduction in binge eating in the GCBT condition.	*Further 12 weeks GCBT for non-responders:* Reduction in binge frequency approached significance.	Lower
Gorin et al (2003; USA) Aim: To assess the impact of spousal involvement in BED treatment.	BED; N=94 (all female)	GCBT; N=32 GCBT-SI; N=31 WLC; N=31	Treatment superior to WLC on binge frequency and abstinence rates but no differences between treatment conditions.	*6 months:* Groups similar and treatment effects maintained.	Lower
le Grange et al (2002; USA) Aim: Is adding EMA to GCBT	BED; N=41 (all female)	GCBT; N=22 GCBT-EMA; N=19	Reductions in binge frequency for both groups.	*I year:* Groups similar and reductions maintained.	Lower

Author, year and country	Participants	Interventions	Outcome: end of treatment	Outcome: follow-up	Quality
superior to GCBT alone?					
Hilbert et al (2012; USA) Aim: To examine the long term effects (4 years) of GIPT and GCBT.	BED; N=90 (F=71; M=19)	GCBT; N=45 GIPT; N=45	See Wilfley et al. (2002) for post-treatment results.	*4 years:* Groups similar on abstinence and remission rates. Significant decline in abstinence rates for GCBT compared to previous follow-ups.	Higher
Jacobi et al (2002; Germany) Aim: To compare the effects of GCBT, Fluoxetine and combination treatments.	BN; N=53 (all female)	GCBT; N=19 FT; N=16 CT; N=18	Significant reductions in binge/purge frequency or binge abstinence for all groups. More abstinent of vomiting in GCBT.	*1 year:* All results maintained.	Lower
Lee & Rush (1986; USA) Aim: To compare GCBT with WLC for people with BN.	BN; N=30 (all female)	GCBT; N = 15 WLC; N=15	Treatment superior to WLC on binge/purge frequency and treatment responders compared to WLC.	*4 months:* Treatment gains maintained.	Higher
Peterson et al. (1998; USA) Aim: To examine the effectiveness of a GCBT programme delivered with varying degrees of therapist input.	BED ; N=61(all female)	TL; N=16 PSH; N=19 SSH; N=15 WLC N=11	Significant results for all treatment groups on binge frequency and abstinence rates compared to WLC.	No follow-up.	Lower
Peterson et al. (2001; USA) Aim: To follow-up the paper by Peterson et al. (1998).	BED; N=51 (all female)	TL; N=16 PSH; N=19 SSH; N=16	See results from Peterson et al. (1998).	*1 year:* Treatment gains maintained. No differences between groups.	Lower
Peterson et al. (2009; USA) Aim: To examine the effectiveness of a GCBT programme delivered with varying degrees of therapist input.	BED; N=259 (F=227; M=32)	TL; N=60 PSH; N=63 SSH; N=67 WLC; N=69	Higher abstinence rates for TL and PSH groups than WLC. Greater reduction in binge frequency for TL group than SSH and WLC; for PSH group than WLC in binge frequency and for SSH group than WLC for binge	*6 months:* Higher abstinence rates for TL group compared to SSH group (completer analysis not intent-to-treat). *12 months:* No differences between groups. Unclear whether reductions maintained compared	Higher

Author, year and country	Participants	Interventions	Outcome: end of treatment	Outcome: follow-up	Quality
			eating episodes but not days.	to pre-treatment.	
Ricca et al. (2010; Italy) Aim: To compare the effects of ICBT and GCBT in the short and long-term.	BED; N=144 (F=127; M=17)	GCBT; N=72 ICBT; N=72	Higher recovery rate for ICBT than GCBT. Significant reductions for both groups on binge frequency.	*3 years:* No difference between groups in recovery rates.	Higher
Schlup et al., (2009; Switzerland) Aim: To investigate the effects of short-term GCBT (8 sessions) followed by 5 booster sessions.	BED; N=36 (all female)	GCBT; N=18 WLC; N=18	Treatment superior to WLC on binge frequency and abstinence rates.	*3 and 12 months:* Results maintained at 3 months. Abstinence rates decreased but remained improved at 12 months. Binge frequency remained constant.	Lower
Shapiro et al. (2007; USA) Aim: To examine efficacy of CD-ROM delivered CBT compared to GCBT and WLC.	BED; N=66 (F=61; M=5)	CD-ROM - CBT; N=22 GCBT; N=22 WLC; N=22	Significant results on abstinence and binge frequency for both treatment groups compared to WLC.	*8 weeks:* Higher abstinence rates for those in active treatment compared to WLC.	Lower
Shelley-Ummenhofer & MacMillan, 2007; Canada) Aim: To examine the efficacy of a shortened version of a GCBT program.	BED; N=22 (all female)	GCBT; N=13 DGCBT; N=9	Reductions in binge frequency for GCBT. Effects similar to, but smaller for DCBT. No analysis on outcome of GCBT compared to DCBT at the end of initial treatment.	No follow-up.	Lower
Tantillo & Sanftner (2003; USA) Aim: To examine the effect of GRT or GCBT on bulimic symptoms and depression at post-treatment.	BED & BN; N=15 (all female) BN N=11 BED N=4	GRT; N=10 GCBT; N=11	Significant reductions for both groups on binge/purge frequency. GCBT had greater decrease in binge frequency than those in GRT compared to pre-treatment, unclear whether significant.	*6 and 12 months:* Reductions in binge/purge frequency maintained at 12 months. At both follow-ups GCBT had greater decrease in binge frequency than GRT compared to pre-treatment, unclear whether significant.	Lower
Tasca et al. (2006; Canada) Aim: To compare GPIP with	BED; N=135 (F=123; M=12)	GCBT; N=47 GPIP; N=48 WLC; N=40	Significant results on binge frequency and abstinence rates for both treatments compared to	*12 months: R*eduction in days binged for treatment groups maintained.	Higher

Author, year and country	Participants	Interventions	Outcome: end of treatment	Outcome: follow-up	Quality
GCBT and WLC.			WLC.		
Telch et al. (1990; USA) Aim: To examine the short-term efficacy of CBT for binge-eating.	BN-Non-purging; N=44 (all female)	GCBT; N=23 WLC; N=21	Treatment superior to WLC on binge frequency and abstinence rates.	*10 weeks:* Binge frequency gains maintained. 46% who were abstinent at post treatment remained abstinent.	Higher
Wilfley et al. (1993; USA) Aim: Is group IPT as effective as GCBT?	BN-Non-purging; N=56 (all female)	GCBT; N=18 GIPT; N=18 WLC; N=20	Treatment superior to WLC but no difference between treatment groups.	*1 year:* Increases in binge frequency compared with post treatment but a significant decrease compared to baseline.	Higher
Wilfley et al (2002; USA) Aim: To evaluate previous findings comparing GCBT with GIPT using a larger sample size.	BED; N=162 (F=134; M=28)	GCBT; N=81 GIPT; N=81	Significant results on abstinence rates and binge eating frequency for both treatment groups.	High abstinence rates and reduction in binge eating frequency for both treatment groups maintained until 1 year follow-up.	Higher
Wolf & Crowther (1992; USA) Aim: To investigate the cognitive components of CBT interventions for BN.	BN; N=41 (all female)	GCBT; N=15 GBT; N=15 WLC; N=11	Treatment superior to WLC but no differences between groups.	*3 months:* Only GBT maintained reductions in binge eating frequency.	Lower

Note: Combined Medication and Therapy Treatment (CT); Delayed Group Cognitive Behavioural Therapy (DGCBT); Fluoxetine Treatment (FT); Group Behavioural Therapy (GBT); Group Cognitive Behavioural Therapy (GCBT); Group CBT with Ecological Momentary Analysis (GCBT-EMA; intensive monitoring of eating behaviour patterns); Group Relational Therapy (GRT); Group CBT with Spousal Involvement (GCBT-SI); Group Interpersonal Therapy (GIPT); Group Psychodynamic Interpersonal Psychotherapy (GPIP); Group Self-Help (GSH); Individual Cognitive Behavioural Therapy (ICBT); Partial Self-Help Group (PSH); Structured Self-Help Group (SSH); Therapist Led Group (TL); Waiting List Control (WLC)

3.0 RESULTS

A summary of the main findings of the 22 articles included for review can be found in table 2. Overall, 14 papers examined GCBT for BED, five for BN, two for non-purging BN and one examined GCBT for both BED and BN. The majority of study participants were female ranging from 78-100% inclusion of female participants, although one paper did not report on participant gender (Bailer, de Zwaan, Leisch, Strnad, Lennkh-Wolfsberg, El-Giamal, Hornik et al., 2004). Most studies took place in the USA or Canada (n=17), one was Australian while the remaining studies were European (one each from Austria, Germany, Italy and Switzerland).

A number of different treatment manuals were utilised in the included studies. These include Agras (1987); Agras et al. (1989); Apple and Agras, (1997); Bulik, (1997) Fairburn (1985); Fairburn et al. (1993); Jacobi et al. (1996); Mitchell et al. (1990, 1993); Mitchell et al. (2008); Munsch et al. (2007); Telch and Agras (1992); Telch et al. (1990) Wilfley et al. (1996). One study used an unpublished manual (Lee & Rush, 1986), another used a combination of manuals (Tantillo & Sanftner, 2003) and two did not make it clear which manual or protocol was used (Wilfley et al., 2002; Wolf & Crowther, 1992). The number of sessions ranged from 6-20 and session duration ranged from 60-120 minutes.

3.1 What is the efficacy of GCBT when compared to Waiting List Control (WLC)?

Over half of all articles in the review included a WLC condition (n=13; 59%). Nine of these studies compared GCBT to WLC for BED, two did so for BN and two for non-purging BN. Five of these were classed as being of higher quality and eight as lower quality.

3.1.1 Binge-Eating Disorder (BED).

Agras, Telch, Arnow, Eldredge, Detzer, Henderson and Marnell (1995) examined whether Interpersonal Therapy (IPT) helped improve symptoms of BED for non-responders of GCBT. Following 12 weeks of GCBT the authors found that 55% of participants in the GCBT condition abstained from binge eating compared with 9% in the WLC condition (the effects of adding IPT were not examined in the current review). The randomisation process and blinding procedure were not described in this study. Compliance to treatment was unclear, but dropout rates were fair. No follow-up measures were taken without added treatment, making it difficult to determine whether the effects of GCBT alone would last long-term.

A similar group of authors repeated the Agras et al. (1995) study. Eldredge, Agras, Arnow, Telch, Bell, Castonguay and Marnell (1997) found that after the initial 12 weeks the number of days on which participants binged was significantly reduced for those in the GCBT condition compared to WLC. However, randomisation was not adequately explained making it difficult to understand why the groups were uneven (GCBT n=36 and WLC n=10). Dropout was high and again no follow-up was completed. For both this and the Agras et al. (1995) study only brief statistical analyses were completed on the outcome measures examining the efficacy of the initial GCBT treatment program. Given this, and the difficulties described, the results of these studies should be viewed cautiously.

Schlup, Munsch, Meyer, Margraf and Wilhelm (2009) examined a short version of GCBT plus booster sessions compared with WLC. They found that there were significantly higher abstinence rates and a significant reduction in binge eating episodes for those receiving GCBT. These improvements continued at three month follow-up but reduced, albeit to a higher rate than

at post-treatment, at 12 months. While this was a lower quality study, the authors were among the few to report on the randomisation process.

Shelley-Ummenhofer and MacMillan (2007) also examined a short version of GCBT by randomly assigning participants to either a GCBT condition or a delayed-GCBT condition. They found that after six weekly sessions of treatment, those in the GCBT condition had large reductions in binge eating severity and frequency compared to baseline. However, there was no statistical comparison between GCBT and delayed-GCBT after the first six weeks and there was no description of randomisation, blinding, dropout or compliance rates. It is, therefore, difficult to interpret the efficacy of GCBT in this study.

In a study examining the effect of spousal involvement on GCBT, Gorin, Le Grange and Stone (2003) compared GCBT with GCBT plus spousal involvement (GCBT-SI) and WLC. For their initial analysis comparing the effects of treatment with WLC they collapsed the results of the GCBT and GCBT-SI into one group. Gorin et al. (2003) found that binge abstinence rates were significantly higher for those in treatment compared with those in the WLC condition (37% versus 9% respectively). It appears that the effects of GCBT lasted until the six month follow-up. Again, the randomisation procedure was unclear and dropout was high. In addition, across the comparison groups, there were significantly skewed distributions of participants receiving either psychotherapy or medication as an additional treatment for co-morbid depression which is a potential confounding effect.

Peterson, Mitchell, Engbloom, Nugent, Pederson Mussell and Miller (1998) examined the effects of a number of different GCBT conditions (including therapist-led GCBT; therapist-assisted GCBT and self-help GCBT) compared to WLC. They found that those receiving therapist-led GCBT had significantly fewer binge episodes and significantly higher abstinence

rates at post-treatment compared to WLC (the results from the other conditions will be reported on in the chapter examining GCBT versus self-help CBT). However, this paper was rated as lower quality, there was no follow-up assessment completed, and the randomisation and blinding processes were not described.

Peterson et al. (2009) replicated the Peterson et al. (1998) study but on a larger scale. They also found that participants in the therapist-led condition had significantly greater abstinence rates and significantly fewer binge eating episodes compared to WLC. It appears that the effects of GCBT were maintained at six and 12 month follow-ups, however, this is only interpreted from the reported means rather than inferential analysis. Dropout rates were also high in this study, although not for the two conditions described here. Despite this, this study is of high quality and the randomisation and blinding procedures are described and adequate. It therefore seems to be a good indication of the immediate and long-term effects of GCBT compared to WLC.

Shapiro, Reba-Harrelson, Dymek-Valentine, Woolson, Hamer and Bulik (2007) compared GCBT with CBT delivered in a CD-ROM format and WLC. They found that those in the GCBT condition had greater abstinence rates and a greater reduction in binge eating days compared to WLC. These results were maintained at eight week follow-up. While this study is of lower quality, it does report on the randomisation process, something which few of the studies in this review do.

Tasca et al. (2006) was the only study to compare GCBT with another therapy (Group Psychodynamic Interpersonal Psychotherapy; GPIP) and WLC. In terms of the results of the GCBT compared to WLC, those in the GCBT condition had a significant reduction in the number of days binged compared to those in the WLC condition. These findings were maintained at 12

month follow-up. This is a higher quality paper and is, therefore, a good indication of both the immediate and longer-term effects of GCBT compared to WLC.

3.1.2 Bulimia Nervosa.

Only two studies examined GCBT compared to WLC for individuals with BN. The higher quality study by Lee and Rush (1986) found that both binge and purge frequency decreased significantly for those in treatment and these gains were maintained at 3-4 month follow-up. While this study had a small sample size and the blinding procedure was not described, randomisation was. Dropout and compliance rates were also described and adequate.

In contrast to the Lee and Rush (1986) paper, the study by Wolf and Crowther (1990) is of lower quality. They examined the efficacy of GCBT compared to both Behavioural Therapy and WLC. In terms of the comparison of GCBT with WLC, Wolf and Crowther found that binge eating frequency significantly reduced for those receiving GCBT and that these reductions were maintained at three month follow-up. Interestingly, the authors did not examine the results of therapy on purging frequency. A strength of this study is the examination of two therapies with WLC, however, there are a number of methodological concerns, including the omission of dropout rates.

3.1.3 Non-purging Bulimia Nervosa.

Two studies compared GCBT to WLC for individuals described as having non-purging BN. While these individuals might now be described as having BED, when these studies were completed the inclusion criteria stipulated that individuals must have persistent concern with

body shape or weight, criteria which differs to that for individuals with BED. Therefore, these two studies will be described separately.

Telch et al. (1990) found that GCBT had a significant impact on binge eating frequency and significantly higher abstinence rates were found for those in this group. The reduction in binge eating frequency was maintained at 10 week follow-up and 46% of those who were abstinent post-treatment were abstinent at follow-up. With the exception of a lack of description of randomisation and blinding processes, this is a higher quality paper and is, therefore, a good indication of the immediate and short-term effects of GCBT compared to WLC.

Wilfley et al. (1993) examined the effects GCBT compared with GIPT and WLC. In terms of GCBT compared to WLC the authors found that GCBT resulted in significantly greater reductions in binge eating frequency. While these reductions had significantly increased again at one year follow-up, individuals in this group were still experiencing significantly fewer binge eating episodes compared to pre-treatment. Like the majority of studies in this review randomisation and blinding were not described. Dropout rates were also high. Despite these limitations, however, this is another higher quality paper and gives a good indication of the immediate and longer-term effects of GCBT.

3.1.4 Summary.

Despite a number of lower quality papers, given that the results from all papers reached the same conclusion, it can be said with some confidence that the literature supports the efficacy of GCBT when compared to WLC in the short-term for BED (Agras et al., 1995; Eldredge et al., 1997; Schlup et al., 2009; Shelley-Ummenhofer & MacMillan, 2007; Gorin et al., 2003; Peterson et al., 1998; Peterson et al., 2009; Shapiro et al., 2007; Tasca et al., 2006). It is beginning to

support the efficacy of GCBT for individuals with BN and non-purging BN, however, these conclusions are drawn from only four papers (Lee & Rush. 1986; Telch et al., 1990; Wilfley et al., 1993; Wolf & Crowther, 1990). Conclusions regarding the longer-term effects of GCBT (i.e. results lasting greater than one year) are more speculative given that only three papers reported on this (Peterson et al., 2009; Tasca et all., 2006; Wilfley et al., 1993).

3.2 What is the efficacy of GCBT when compared to individual CBT (ICBT)?

While ICBT is often seen as superior to GCBT, given the cost-effectiveness of groups (Söchting et al., 2010), it is important to compare the efficacy of GCBT with ICBT. However, only two studies eligible for inclusion in this review compared GCBT with ICBT, although both were of higher quality. Chen et al. (2003) did not find any differences between GCBT and ICBT in terms of binge eating and purge frequency post-treatment for individuals with BN with both treatment approaches resulting in significant reductions in these measures. Abstinence rates were higher at post-treatment for those individuals who had received ICBT, however, this result had disappeared at six month follow-up. All other results were maintained at follow-up.

Ricca et al. (2010) examined the efficacy of GCBT compared with ICBT for individuals with BED. They found that at post-treatment, significantly more participants from the ICBT condition were classed as ‘recovered’ (no longer meeting the diagnostic criteria for BED) than participants in the GCBT condition. There were no other differences between the groups on binge eating frequency, with significant reductions for both treatment groups between pre and post-treatment. At three year follow-up, the difference in recovery rates had disappeared. All other reductions were maintained.

3.2.1 Summary

As only two studies were included in the current review which compared GCBT to ICBT only initial conclusions can be made. These results, therefore, provide initial evidence for the efficacy of GCBT in the treatment of both BN and BED. While ICBT appears to be superior in the short-term treatment of BED, there does not seem to be any difference between the two treatment modalities in the longer-term. More research is needed in this area for both disorders in both the short and long-term in order for more generalised conclusions to be drawn.

3.3 What is the efficacy of GCBT when compared to self-help CBT (SH-CBT)?

Four of the included studies compared GCBT to SH-CBT, three of which examined these conditions in the treatment of BED. Three out of the four studies were of lower quality.

3.3.1 Binge Eating Disorder

The three studies comparing GCBT with SH-CBT for BED were all led by Carol Peterson. Her first study was in 1998 and compared three types of CBT with WLC; therapist-led GCBT (TL condition); partial self-help GCBT (PSH condition; in which a therapist was present for only half the session) and structured self-help GCBT (SSH; in which no therapist was present). Peterson et al. (1998) found that all three treatment groups resulted in significant reductions in binge eating frequency and significant increases in abstinence rates post-treatment. No differences were found between the groups.

Peterson, Mitchell, Engbloom, Nugent, Pederson Mussell, Crow and Thuras (2001) followed-up the participants from the 1998 study up to one year post-treatment. They found that the benefits found in the original study were maintained at follow-up with no differences between

the treatment conditions. This is a lower quality study with similar methodological flaws to the original study, which are discussed in a previous section, with the only additional flaw being the difference in reported N size for the SSH condition (n=15 in Peterson et al., 1998 and n=16 in Peterson et al., 2001).

As previously discussed, Peterson et al. (2009) replicated the 1998 study completed by Peterson and colleagues. They found that abstinence rates were significantly higher for participants who were in the TL and PSH conditions compared to WLC. The TL group had greater reductions in binge eating frequency compared to SSH and WLC and the PSH group had greater reduction in binge eating frequency compared to WLC only. At 12 month follow-up there were no differences between the groups on any of the outcome measures and as already described, it appears that gains made post-treatment were maintained at follow-up.

3.3.2 Bulimia Nervosa

The study by Bailer et al. (2004) is the only included study which has examined GCBT with SH-CBT for the treatment of BN. They found that at post-treatment both groups had significant reductions in binge eating and purge frequencies compared to pre-treatment, although there was no difference between the groups on either measure. Abstinence and remission rates (where symptoms reduce to below that of the BN criteria for diagnosis) also did not differ between the treatment groups. At one year follow-up the completer analysis indicated that there was a significant increase in abstinence rates for those in the SH-CBT condition compared to post-treatment, however, these results were not supported by the intent-to-treat analysis. Dropout rates were also high for the GCBT condition. While strengths of this paper include the long-term follow-up and large sample size, this is a lower quality study with a number of methodological

flaws.

3.3.3 Summary

The findings seem to support the efficacy of GCBT compared to SH-CBT in the treatment of BED if the results of the large scale, higher quality paper are taken into account (Peterson et al., 2009). However, all three papers which examined these treatment modalities came from the same group of authors and there is some evidence that SH-CBT may be as efficacious as GCBT. The findings are difficult to interpret for BN given that only one poor quality paper was included. Further studies are required for both disorders and by different authors for more robust conclusions to be drawn.

3.4 What is the efficacy of GCBT when compared with another treatment modality?

Seven papers examined the efficacy of GCBT compared to another treatment modality including, group Interpersonal Therapy (GIPT); group Psychodynamic Interpersonal Psychotherapy (GPIP); group Relational Therapy (GRT); group Behavioural Therapy (GBT); and fluoxetine treatment.

3.4.1 Group Interpersonal Therapy (GIPT)

The three papers which compared GCBT with GIPT were all of higher quality. Wilfley et al. (2002) compared these for the treatment of BED. They found that abstinence rates were high for both groups post-treatment (82% for GCBT and 74% for GIPT) and that there was a significant reduction in binge eating frequency for both conditions. There were no significant differences between the groups post-treatment. All gains were maintained at one year follow-up.

Hilbert et al. (2012) followed-up approximately 50% of the participants from the Wilfley et al. (2002) study. They found that there was a significant reduction in abstinence rates for those in the GCBT condition at four year follow-up, however, there were still no significant differences between the two conditions at this time point. The authors argue that this demonstrates the long-lasting efficacy of both GCBT and GIPT for the treatment of BED, although large numbers of participants had received further treatment for eating and weight difficulties.

As already discussed, Wilfley et al. (1993) examined these therapies in the treatment of non-purging BN. At the end of treatment, while both treatment conditions were superior to WLC, there were no significant differences between the two. At one year follow-up both treatment conditions had significant increases in binge eating frequency compared with post-treatment, however, these reductions were to levels that were significantly lower than at pre-treatment.

3.4.2 Group Psychodynamic Interpersonal Psychotherapy (GPIP)

Based on both interpersonal and psychodynamic stances, Tasca et al. (2006) tested out a new form of therapy, GPIP. In comparison to GCBT, both treatment modalities resulted in a significant reduction in binge eating frequency at post-treatment, however, there were no differences between the groups. All results were maintained at one year follow-up.

3.4.3 Group Relational Therapy (GRT)

The study by Tantillo and Sanftner (2003) is the only paper included in the current review which examined GCBT compared to GRT. Their study examined the efficacy of these modalities in the treatment of both BN and BED. They found that both conditions resulted in significant reductions in both binge and purge frequency at post-treatment. There were greater reductions in

binge frequency for those who received GCBT, although it is unclear whether this was significant. All results were maintained at 12 month follow-up, but again it is unclear whether the difference in binge eating frequency between those in the GCBT condition and those in the GRT condition is significant. While this study had a good sample size and fair dropout rates, the paper is of lower quality.

3.4.4 Group Behavioural Therapy (GBT)

As already discussed, the study by Wolf and Crowther (1992) compared GCBT and GBT in the treatment of BN. They found that binge eating significantly reduced for both treatment groups post-treatment although there was no difference between the groups. At three month follow-up only those in the GBT condition maintained their reductions in binge eating.

3.4.5 Medication

The study by Jacobi, Dahme and Dittman (2002) compared GCBT with Fluoxetine treatment and a combined GCBT and Fluoxetine approach in the treatment of BN. All three treatment approaches resulted in significant reductions in binge and purge frequency post-treatment with no significant differences between the groups found. There were also no significant differences between the treatments in terms of binge eating abstinence however there were significantly more participants who had received GCBT who were abstinent of purging compared to the other two groups. Binge frequency reductions were maintained at one year follow-up although all other differences between the groups had disappeared at this time. Dropout rates were high in this study and randomisation and blinding had not been described making it a lower quality methodological paper.

3.4.6 Summary

Other treatment modalities have not been found to be superior to GCBT in the treatment of BN or BED, with the exception of GBT (Wolf and Crowther, 1992). However, this is based on only one, lower quality paper and further research is required to make a more substantive conclusion.

3.5 What is the efficacy of GCBT compared to GCBT with an added component?

Three papers were included in the review which examined whether having an additional component to the GCBT program or delivering CBT in another format would be superior to GCBT alone. These were, GCBT with spousal involvement, GCBT with Ecological Momentary Assessment (EMA; intensive monitoring of eating behaviour patterns) and CBT delivered in a CD-ROM format.

As discussed, Gorin et al. (2003) found that delivering GCBT with participant's spouses did not add to the efficacy of GCBT alone either at post-treatment or at six month follow-up.

Le Grange, Gorin, Dymek and Stone (2002) added EMA to GCBT and compared it to standard GCBT in the treatment of BED. Both conditions resulted in a reduction in binge eating frequency post-treatment, however, there were no differences between the groups. All results were maintained at one year follow-up. Dropout was high in this study and similarly to other papers, randomisation was not described. This is a lower quality paper.

The Shapiro et al. (2007) paper has been discussed previously with regards to GCBT compared to WLC. In terms of comparing GCBT to CBT delivered in a CD-ROM format in the treatment of BED, the authors found that both treatment conditions resulted in a significant reduction in binge eating frequency at post-treatment. There were no differences between the

groups, however, on this or on abstinence rates. All results were maintained at eight week follow-up.

3.5.1 Summary

The addition of spousal involvement or EMA does not seem to add to the efficacy of GCBT. The evidence suggests that CBT might be delivered in a CD-ROM format, however, this is based on only one, lower quality, paper.

4.0 DISCUSSION

4.1 Overview of the evidence

Overall the evidence seems to support the efficacy of GCBT in the treatment of BED and BN, particularly in the short-term. The evidence was strongest in comparison to WLC in which all studies found GCBT to be superior, regardless of quality and disorder examined. Only two, albeit high quality, papers were included which examined GCBT compared to ICBT. Both found that ICBT tended to be superior in the short-term but in the medium to long-term GCBT seems to be as effective as ICBT. GCBT also seemed to be as effective in the treatment of both BED and BN compared with other modes of treatment. GIPT and GPIP seemed to produce results similar to GCBT in both the short and long-term. GCBT appeared to be superior to GRT and fluoxetine treatment for purging behaviours but seems inferior to GBT. However, these latter findings are each based on one low quality paper. Finally, adding either spousal involvement or EMA to GCBT does not seem to add to the efficacy of it. There may be some evidence that CBT delivered in a CD-ROM format is as efficacious as GCBT, but again this is based on one low quality paper.

The evidence also seems to suggest that GCBT can be delivered in as little as 6 sessions, however, only one, low quality paper showed this (Shelley-Ummenhofer & MacMillan). On average treatment was completed in 14 sessions and session duration lasted, on average, 90 minutes. On face value, it seems that each treatment manual utilised was efficacious, however, it was beyond the scope of this review to determine whether any one treatment manual was superior to the others.

The findings of this review are interesting for a number of reasons. Firstly they support the findings from the review by Fettes and Peters (1992) who concluded that GCBT was superior

to an untreated control condition in the treatment of BN. They also support the reviews which examined the efficacy of treatment for both BN and BED in which GCBT was mentioned, albeit only briefly (e.g., Brownley et al., 2007; Shapiro et al. 2007). Surprisingly, when delivered in a group format, the results did not support the findings that IPT takes longer to have an effect than CBT (Iacovino et al., 2012; NICE, 2004). In this review both treatment modalities were as effective as each other in both the short and long-term.

The results are also interesting in terms of their clinical implications. Given that health economies are currently undergoing a number of efficiency savings and that group therapy is seen as being cost-effective (Shapiro et al., 1982; Toseland & Siporin, 1986), it seems that GCBT may be one viable option as a means to cut costs. This is particularly in terms of its comparability to both ICBT in the long-term and fluoxetine treatment. It also seems that GCBT can be delivered as a stand-alone treatment without the addition of other components to increase its efficacy.

4.2 Quality of the evidence

While this review has drawn out some interesting conclusions, it is important to note that there were some methodological concerns. Over half of the studies included in this review were classed as being of lower quality (59%) and the most notable omission in the methodology of the majority of these papers was a description of how participants were randomised to each condition. In addition to this, blinding procedures were not described and a number of studies had a small sample size. This makes it difficult to determine whether the results are based on sound randomised controlled trials. Despite this, dropout rates were fair, intent-to-treat analyses were completed in the majority of studies and most studies had groups with similar demographics at baseline.

4.3 Limitations of the literature and directions for future research

Other than the methodological weaknesses described above there were a number of other limitations of the literature. The availability of more long-term data was sparse, making it difficult to ascertain whether the effects of GCBT are maintained. While the small amount of literature examining the long-term treatment effects of GCBT seems promising, further research is required to make more substantive conclusions. Similarly, more research is needed to examine the efficacy of GCBT for BN. The data in the current review is skewed towards BED and, again while initial data is promising for BN, there is not enough to draw strong conclusions.

The majority of research included in this review is from the USA. Only four studies were European and none were from the UK. It is therefore difficult to determine whether the results from the research conducted in the USA can be generalised to the UK without any literature from the UK to compare it to. It is important that good quality randomised controlled trials are conducted in the UK, given that the healthcare model adopted here is different from that adopted in the USA. In addition to this, only half of included studies were conducted in the last 10 years and only four from the last five years. Therefore, more up to date research is required.

To concur with Brownley et al. (2007) and Shapiro et al. (2007), the literature as a whole used a large number of outcome and assessment measures, making comparisons between studies on a large scale difficult. Brownley et al. argue that in future the number of outcome measures used should be refined and consolidated. Both reviews also pick up on the lack of consensus in terms of the definitions of recovery, remission and relapse for both BN and BED. This was also found in the current review. There was also a lack of consensus as to how binge eating frequency was measured. This varied between studies, for example, some used the past seven days, others the past two weeks and others the past month. Again, both reviews suggest that binge and purge

frequency should be measured for a specified period of time, which they argue should be at least one month.

Finally, this review is limited to examining the efficacy of GCBT for individuals with BN and BED. The reason for this is due to the limited literature examining GCBT in the treatment of Anorexia Nervosa. Further research is needed within this area, particularly as CBT is one of the treatment approaches recommended by NICE (2004).

4.4 Limitations of the current review and directions for future reviews

There were a number of constraints on this review, limiting the findings in a number of ways. Firstly, the review was limited to adults over the age of 16. Future reviews would need to explore the efficacy of GCBT for children and adolescents. It was also limited to English only articles which limits the generalizability of the findings.

Given the above discussion regarding the variety of measures used to assess outcome, this review was limited to examining binge and purge frequencies, including abstinence, remission and recovery rates. However, various other common outcome measures could have been reviewed including weight and BMI for individuals with BED and depression for both BN and BED. Future reviews may want to examine the effect GCBT has on these outcomes.

Finally, this review focussed only on those papers which had some form of randomisation and a control condition. There may be studies which did not use randomisation which could add to the literature, particularly in the areas which were lacking, for example, long-term data and research for individuals with BN. Future reviews may want to consider including studies which have not used randomisation.

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The lived experience of loss of control during binge eating episodes.

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ABSTRACT

Objective: To explore the lived experiences of binge eating episodes and loss of control (LoC) for individuals with Bulimia Nervosa (BN).

Method: Five women with either current or previous symptoms of BN were recruited. Participants were interviewed regarding their experiences of binge eating and LoC. All interviews were analysed using interpretative phenomenological analysis (IPA).

Results: Five super-ordinate themes emerged from the data. These were: *'The meaning of food: The need for controlled eating'* which explored the participant's strict eating behaviour when they were not bingeing; *'Embodied and contextual accounts of bingeing'* which explored the participant's understanding of the feelings and situations which could lead to a binge; *'During the binge: The point of no return'* which examined the participants feelings of not being able to stop once a binge had started; *'Shifting in and out of a dissociative state'* which examined whether LoC is a conscious process, a subconscious process or both and finally '*The negative consequences of bingeing'* which explored the participants accounts of the negative feelings and general consequences of binge eating.

Discussion: The participants' accounts of restrictive or controlled eating, their feelings and urges immediately prior to a binge and the negative consequences afterwards are all well documented in the literature. There is growing evidence regarding the relationship between dissociation and BN of which the current study contributes. What is interesting about the current study is the finding that participants can seemingly shift in and out of their dissociative state. This is an interesting topic for future research.

1.0 INTRODUCTION

Feelings of loss of control (LoC) are experienced by individuals with anxiety, depression, psychosis, substance misuse difficulties and eating disorders (Cornford, Hill & Reilly, 2007; McLean & Broomfield, 2007; Sigmaringa Melo, Taylor & Bentall, 2006; Telch, Pratt & Niego, 1998). In the addictions literature, LoC has been linked to the dopamine and reward systems in the brain. Dopamine is a chemical within the brain which controls how we react to rewards within our environment. Robinson and Berridge (1993) argue that changes in the dopamine system occur when an individual takes an illicit substance. They propose this change increases the rewarding properties of that substance and makes an individual *want* the substance more. The paper also suggests that the dopamine system is affected by food intake. It would, therefore, follow that, after the consumption of certain foods, the rewarding properties of that food makes an individual *want* that food more. Another theory of LoC in terms of substance misuse is proposed by Baumeister (2003). He argues that self-regulation is an inner strength used to control impulses and that this fails in people with addictions and eating disorders. Baumeister suggests that as self-regulation is an inner strength, the more tired a person becomes the more likely their self-regulation will fail.

While not all researchers believe that eating disorders are an addiction, they do argue that there are similarities between such disorders and drug addictions (Fortuna, 2012; Foulds Mathes, Brownley, Mo & Bulik, 2009; Wilson, 1999). Goodrick (1999) argues that there may be similar physiological mechanisms which mediate both food and drug reward. In animal studies it has been found that rats deprived of food not only eat more on subsequent intakes of food but often find them more rewarding (Berridge, 1991; Foulds Mathes et al. 2009). In humans with eating disorders it has been found that, for those who cycle through restrictive and over-eating, there is a

preference for high sugar and fat content foods during periods of over-eating. Individuals then feel they cannot control their eating because they have failed to keep to their restrictive diet (Goodrick, 1999).

Over-eating, namely binge eating, is one of the central characteristics of Bulimia Nervosa (BN). The Diagnostic and Statistical Manual of Mental Disorders (5th Ed.; DSM-V; American Psychiatric Association, 2013) defines Bulimia Nervosa (BN) as the experience of recurrent episodes of binge eating, with a sense of a lack of control over such eating and inappropriate compensatory behaviours to control weight gain, such as self-induced vomiting or restrictive eating (for a more detailed definition of BN see chapter one of this volume).

LoC during binge eating has been widely researched, although only more recently with a focus mainly on individuals with Binge Eating Disorder (BED) rather than BN (Wolfe, Wood Baker, Smith and Kelly-Weeder, 2009). Of the research completed with individuals with BN, it suggests that women do associate LoC with binge eating and that LoC has been viewed by many women as being one of the defining features of their binge eating episodes (Abraham & Beumont, 1982; Beglin & Fairburn, 1992). White and Grilo (2011) found that the presence of the indicators of LoC, such as eating until uncomfortably full, are highly indicative of a diagnosis of BN or BED. The review by Wolfe et al. (2009) also found that LoC was the central most stable feature of a binge episode. All of these findings are supported by research which has examined LoC as a central feature of BED (Reslan & Saules, 2011; Telch, et al., 1998). One important review paper examining the diagnostic validity of the criteria for BED also found that LoC in this population may be affected by mood but may also affect quality of life (Latner & Clyde, 2008).

LoC is clearly an important factor in the diagnosis of BN and if we are to have a useful understanding of the functional role of LoC then we should understand this from the perspective

of the individual experiencing it. However, to date, there are no such studies which have explicitly examined the experience of LoC for individuals who binge eat. There are a small number of studies which have examined the experience of binge eating and BN more generally and LoC is briefly discussed. Both Brooks, LeCouteur & Hepworth (1997) and Burns (2004) used discourse analysis to explore the construction of BN. LoC was constructed as a personality trait construing someone who lacks 'willpower' or 'self-discipline' and individuals with BN, who experience LoC, were even described as failed anorexics who give in to their hunger. Maddocks and Bachor (1986), described a case study of a woman with BN called 'Kim', although it is unclear how her interview was analysed. While LoC was associated with bingeing and not being able to stop the BN cycle, 'Kim' described BN as being something she could control when the rest of her life seemingly felt out of control.

In terms of the more general experience of binge eating, using a phenomenological approach, Orbanic (2001) found that women experienced BN as a 'living hell' which was habitual in nature. These women found themselves manipulating and deceiving people around them and used bingeing and purging to block out and detach from difficult emotions. Similarly, Broussard (2005) found that women with BN tried to dissociate themselves from it, lived in fear of being judged and experienced it as isolating. They described BN as an overwhelming compulsion to eat. One other study which used a phenomenological approach was the paper by Lyons (1998), although participants were six women with BED. LoC was briefly mentioned as being associated with eating and was described as either a lack of conscious awareness over eating or a verbal decision to eat until everything was gone. Other themes included a discussion around the types of food eaten, the fact that participants did not want others finding out about the amount of food they eat, planning of binges and the negative emotions associated with bingeing.

Despite this paper only briefly mentioning LoC and the fact that participants were women with BED it is the only paper which includes some detail into the lived experience of LoC during binge eating.

LoC is one of the core diagnostic features of BN (DSM-V) and no studies have directly examined this experience for individuals with the disorder. In addition to this, Wolfe et al. (2009) argue that further research is required in order to explore the functional role of LoC during binge eating episodes and to understand the link between LoC and psychological distress in this disorder. Understanding some of these links and possibly the link with LoC theories proposed in the addictions literature may guide clinical interventions in the future.

While a small number of studies have used phenomenological approaches to understand the experiences of women who binge eat, to date, there have been no studies using interpretative phenomenological analysis (IPA) to explore the lived experiences of individuals with BN. More specifically, there have been no phenomenological studies exploring the experience of LoC during a binge eating episode for these individuals. Therefore, the current study had two main aims:

1. To explore the lived experiences of binge eating episodes for individuals with BN using an IPA approach. IPA was chosen due to a lack of current research exploring the experiences of individuals with BN using this approach. IPA is used specifically to help to understand the lived experience of participants (see method section).
2. To explore the lived experiences of the loss of control during such episodes for these individuals.
3.

2.0 METHOD

2.1 Design

The current study employed qualitative methodology using interpretative phenomenological analysis (IPA). IPA attempts to understand lived experience and is concerned with meaning and processes with a particular interest in the specific rather than the general. The focus is on the meaning of experiences for individuals. Personal experiences are unique and have particular significance for the individuals recounting them (Larkin, Eatough & Osborn, 2011; Larkin & Thompson, 2012; Smith, Flowers & Larkin, 2009).

IPA always involves interpretation of the accounts of individual's lived experience. This is known as hermeneutic phenomenology and suggests that *"our observations are always made from somewhere"* (Larkin & Thompson, 2012, p.102). However, this can lead to bias within our data analysis if we as researchers are not aware of our own experiences, concerns, expertise and assumptions and reflect on these throughout the process. It is therefore, important to understand the researcher and what they bring to the research process as a 'person-in-context' (Larkin & Thompson, 2012; Larkin, Watts & Clifton, 2006; Smith, 2007; Smith et al. 2009). This is also known as reflexivity and involves reflecting your thinking back on yourself (Shaw, 2010).

2.2 The Researcher

I approached the idea of interviewing individuals with eating disorders as a clinical psychologist in training and, in collaboration with my research supervisor at the University of Birmingham, decided upon interviewing individuals with BN about their experiences of loss of control. All the participants I interviewed were made aware of my 'status' as a clinical psychologist in training prior to taking part. I felt that this was important for me to also keep in

mind given my training in 'interviewing' the people I work with in a reflective way and how this might conflict with the philosophy of IPA. I also made participants aware of the reasons why I felt the research was important to undertake, including the fact that loss of control is part of the diagnostic criteria of BN and yet no other researcher has explored the lived experience of this.

Prior to commencing my training I had very little experience of working with individuals with eating disorders other than a small number of shifts working on an inpatient unit for adults with eating disorders. Although this was limited experience it did spark my interest in exploring eating disorders further. I felt that my limited experience also had advantages within my current research topic as I felt that I did not come at the topic with many preconceptions as to what I might find.

2.3 Sampling strategy

Typically, small sample sizes are required for IPA studies in order to obtain a rich body of data. Sample size is determined by the researcher depending on time, resources and the aims of the research (Larkin & Thompson, 2011). I aimed to recruit between five and ten participants and recruited five. In order to obtain a degree of homogeneity within the sample I applied inclusion and exclusion criteria. The inclusion criteria stipulated that participants should have a diagnosis of bulimia nervosa (BN), be over 18, speak English and be able to talk about their experiences of binges. Participants were excluded from the study if they had a dual diagnosis of psychosis, self-harm or substance misuse. Part-way through the study, one participant contacted me who had been in recovery from BN in the last 6 months. She was able to recall her experiences of binge eating in detail and so I decided, to include her in the study.

2.4 Participants

Participants were recruited by either responding to an advertisement that was placed on the website of a UK based eating disorders charity (Beat; see appendix 2) or through word of mouth. Prior to being accepted into the study, participants were sent an information sheet to read to ensure informed consent was obtained (see appendix 3). After reading the information sheet, if they still wanted to take part, I completed a telephone interview with participants to determine eligibility and to answer any questions they had about the study. The participants were five women, aged between 19 and 33. Duration of illness ranged from three to over ten years. Participant demographics along with their pseudonyms and current eating disorder symptoms can be seen in table 1.

Table1: Participant demographics

Participant pseudonym	Gender	Age	Ethnicity	EDE-Q
Anna	Female	33	White British	Binge episodes experienced every day 10 objective binge episodes experienced, all of which were experienced as LoC No subjective binge episodes experienced Used purging by means of vomiting 28 times No other behavioural indicators experienced
Leah	Female	27	White British	Binge episodes experienced on 6-12 days 15 objective binge episodes experienced, all of which were experienced as LoC 28 subjective binge episodes experienced Used purging by means of vomiting 28 times No other behavioural indicators experienced
Grace	Female	19	White British	Binge episodes experienced on 6-12 days 6 objective binge episodes experienced, 4 of which were experienced as LoC 8 subjective binge episodes experienced Used purging by means of vomiting 30 times Used purging by means of laxative 16 times Used purging by means of excessive exercise 4 times
Jo	Female	25	White British	Binge episodes experienced every day Objective binge episodes experienced every day, all of which were experienced as LoC No subjective binge episodes experienced Used purging by means of vomiting 30 times No other behavioural indicators experienced
Elizabeth[1]	Female	28	White British	No episodes of binge eating No other behavioural indicators of an eating disorder

[1]Elizabeth reported being in recovery from BN in the last 6 months which is evident from her EDE-Q scores.

2.5 Procedure

All interviews took place between September 2013 and April 2014 either at the University of Birmingham or over Skype. While ideally I would have interviewed all participants face-to-face, this was not possible due to participants being unable to attend a face-face interview.

I obtained written, informed consent prior to the commencement of each interview (see appendix 4). I also administered the Eating Disorders Examination – Questionnaire (EDE-Q; Fairburn & Beglin, 1994; see appendix 5), a validated and reliable measure (Luce & Crowther, 1999; Mond, Hay, Rodgers, Owen & Beumont, 2004) to help understand participant's current eating disorder symptomatology. The interviews were semi-structured and lasted on average 60 minutes. I derived the interview questions in collaboration with a clinical psychologist with experience working in the eating disorders field. I also consulted a service-user with a history of BN, who did not take part in the research, regarding the wording of questions. The interviews comprised of five main questions with follow-up questions and prompts used to elicit further information as and when required. I asked participants about their experiences of their binge eating episodes and the LoC they experience during this (see appendix 6 for a copy of the interview schedule).

All interviews were audio-recorded and transcribed verbatim. I removed or modified any identifying information or information which might breach confidentiality. I informed participants GPs of their involvement subsequent to their taking part in the research (see appendix 7 for a copy of the GP letter).

2.6 Ethics

Ethical approval was obtained from an NHS ethics review board (National Research Ethics Service; see appendix 8). For the purposes of minimising risk to both myself and the participant it was stipulated that interviews would take place away from the participant's home. In addition to this, given the nature of the topic discussed, if a participant had become distressed during or following the interview, there was the option of talking to a qualified psychologist from

the University of Birmingham. Participants were made aware that they could terminate the interview at any time and could withdraw from the study up to two weeks following their interview. A two week time limit was placed on withdrawal due to the nature of qualitative analysis and the difficulties extracting analysed data from that of other participants.

2.7 Data Analysis

I analysed the data according to the principles of IPA outlined by Smith et al. (2009). I did this on a transcript-by-transcript case. I read and re-read the first transcript listing initial notations in the margins. When I read the transcript again, I made more descriptive comments and codes noting objects of meaning and how the participant experienced these objects both implicitly and explicitly. I completed the analysis in detail working line-by-line. I also made comments on the use of language by the participant noting, for example, tone and repetition. Finally, I made conceptual, more interpretative comments in terms of further questions the data elicited or any reflections on the codes made.

Once this step-by-step analysis was complete for the first participant, I transferred the objects of meaning and their codes along with the linguistic and conceptual comments onto a word document. I then initially clustered codes into emerging themes. I repeated this, in turn, for the remaining transcripts until a list of 20 emerging themes were generated. I then re-analysed codes from all the transcripts to ensure no emerging themes were missed. I clustered together emerging themes based on patterns and similarities between them to develop super-ordinate themes, of which there were five. Various steps of the analysis were discussed with my research supervisor, who is experienced in the application of IPA, to ensure validity of the clusters I was

making and to allow for further reflection on the data (see appendix 9 for examples of each stage of the analysis).

2.8 Validity and Quality Checks

One way of checking the validity of a qualitative analysis is through member checking, however, Larkin and Thompson (2011) argue that this is only appropriate for single-case designs. They argue that a more appropriate way of validating analysis is through 'sample validation' whereby individuals who were eligible to take part, but did not, review the analysis. Unfortunately, it was not possible to employ this method of validation in the current study. Peer review was utilised, however, in the form of an 'IPA group' held at the University of Birmingham. Here sections of individual transcripts were coded by other members of the group and a discussion was had around similarities and differences emerging from the group analysis. This type of credibility check was also completed with my research supervisor.

3.0 RESULTS

Five super-ordinate themes emerged from the analysis. During the course of the interviews, either through the process of the interview questions or naturally, each participant spoke about their binge eating experiences as a journey from pre-binge to pre-purge. The emergent themes, when clustered to develop super-ordinate themes, seemed to naturally fit this pattern. Therefore the super-ordinate themes take us on the journey the participants go through. The first theme is concerned with '*The meaning of food: The need for controlled eating',* which examines the participants' experiences of food when they are not bingeing. Within this theme the participants make some interpretation regarding what leads to a binge but also the consequences of it. Given the former interpretations I have decided to describe this theme first and lead it into the second which describes the participants' interpretations of the pre-binge more specifically: *'Embodied and contextual accounts of bingeing.'* The third theme *'During the binge: The point of no return'* examines the participants' experiences during the binge which are of continued eating and feelings of not being able to stop. There is some overlap between this theme and the fourth which examines this idea of not being able to stop in more detail; namely the participants' experiences of loss of control (LoC). This theme explores the concept of LoC and whether this is a conscious or a subconscious process: '*Shifting in and out of a dissociative state'.* Finally the fifth theme deals with the aftermath of the binge and LoC. Participants almost exclusively talked about these experiences in negative terms and describe these both in relation to feelings and general consequences: *'The negative consequences of bingeing'.*

3.1 The meaning of food: The need for controlled eating

Overall, the participants' thoughts and feelings around food and eating in general seemed to be very black and white: that there are good and bad foods and good and bad portion sizes. The idea of things being 'good and bad' often led participants to develop a set of rules about their eating and food choice. When not bingeing, only 'good' foods tended to be eaten and the participants talked about being conscious of what and how much they were eating:

"...I still think that I've eaten too much cos I might set myself a rule beforehand and say ok you're gonna have say if I was going out for lunch with friends or something and I don't know we went to [a restaurant] and I got a pasta dish I'd kind of think ok this is a normal portion but I'd say to myself ok just eat like half of this or leave a little bit on the plate..." (Leah, lines 375-381)

"...I am very controlled during the daytime of how much I'm allowed to put in my thr/put in me..." (Anna, lines 338-340)

"...it's food that (pause) I wouldn't eat on like a normal day[food for a binge] um so I wouldn't you know eat like a whole bag of crisps say and um like croissants and biscuits I won't you know that's not something that I'd I'd eat generally for like lunch or whatever." (Jo, lines 147-152)

"...I restricted my food massively so I would eat barely anything um well not barely anything but barely anything to what I would eat now um so I you know I would try and like miss breakfast and then have like the lowest calorie sandwich I could..." (Elizabeth, lines 546-540)

Often portion control was maintained through a set of strict rules and boundaries as can be seen in Leah's account above. Such rules could also turn into restriction and over-control during eating at times when participants were not bingeing. In the above extracts, this can best be seen in

Elizabeth and Anna's account, when for example, Elizabeth describes routinely restricting her calorie intake, and Anna describes her own intake in terms of what she is 'allowed' to 'put in.' All of the participants talked about restricting or controlling their diet at some point during the course of their illness. Jo talked about restricting her diet when she was younger and said she never wanted to go back to this. Her current way of managing her food intake at times when she is not bingeing is by planning all of her meals for the week. As can be seen in her example below, this indicates that if her meals are not planned meticulously, then any food that Jo does eat might turn into a binge. There is a sense throughout the accounts that the participants are standing on the edge of a cliff when they are not bingeing and that any meal they eat could tip them over the edge and lead to a binge, hence the need for control. For example:

"...I will plan say what I'm gonna have for my lunch throughout the week... and I'll have I'll try really hard to kind of control what I eat then in terms of portion size as well... like I said that really helps me because then there's very little chance of me kind of going along to the shop and just buying something." (Jo, lines 478-498)

"...I don't know what came first the restriction or the um controlling but I would feel like I had to control what I ate otherwise it would be a binge, it would get out of hand." (Elizabeth, lines 563-566)

For some of the participants, this controlled eating at times when they are not bingeing seemed to conflict with the aims of therapy. This was mainly discussed by Grace and Elizabeth who talked about cognitive behavioural therapy (CBT). While Grace talked about therapy being helpful she is not in recovery from BN as she is still actively bingeing and purging. This would suggest that therapy has not been as helpful as Grace describes, although she may have been

painting therapy in a good light given she was talking to a person who is training to deliver therapy. Her account of some of the aspects of therapy (meal plans) is one of being controlled by her treatment. Therapy was constructed as being oppressive and there was a sense that she felt as though she could not be trusted and was controlled in what she could and could not eat which could possibly lead to a binge:

"...when you've got your meal plan...it's just like (pause) boring I suppose like you know that you should do it it's like you know when you're back at school and you're like brilliant I've got double maths like that's exactly how it feels you're like ok I've got rice today...I don't fancy rice I don't like it's just yeah it's just boring like it's just there and you know you've got to have it because especially like when you're at your worst and somebody else is helping you like is cooking it for you and they're like portioning it out and you're just like really really just don't fancy it and they're like well it says on the sheet and I'm like I don't care what the sheet says like it's just like controlled like being controlled opposed to being in control is the difference."
(Grace, lines 919-933)

Elizabeth talked similarly about CBT being unhelpful in that she was told to avoid foods that could lead to a binge. This then maintained her restrictive eating, maintaining Elizabeth's eating disorder:

Elizabeth: "...the other thing I found really unhelpful about the CBT before was um you know they teach you control how to control your binges but like a lot of people with bulimia are over-controlled people and that's their problem. So they'd be like oh you know don't eat trigger foods so there was like a whole list of foods that I wouldn't eat like because I was scared that they would trigger a binge..."
Interviewer: "...did that then lead to restriction of those foods?"

Elizabeth: "Yes massive restriction like I wouldn't eat them..." (Elizabeth, lines 819-835)

There is a general sense of fear of bingeing in Elizabeth's account which might explain her need to control her eating at other times. There is also an underlying tone of frustration with the whole experience of therapy in both Elizabeth's and Grace's passages. Frustration and sadness were also inherent in Anna and Leah's stories (Jo did not talk about therapy):

"...I've tried all sorts of different things um yeah it's still there even though I've tried all these different things and I I every time I see a different therapy I think oh this is what's going to help this is what is going to make me better and it doesn't so I've kind of given up quite a bit at the moment." (Anna, lines 193-198)

"...ages ago...they send me to bloody art therapy...I just thought I/I don't want to do an arts and craft session I want someone to talk to me and tell me how to cope with it um and that just wasn't available so I gave up um I just read and I tried to get through it on my own..." (Leah, lines 1198-1204)

Overall this theme reflects a general sense of participants needing to control and/or restrict their eating at times when they are not bingeing otherwise any food eaten could lead to a binge. This need for control then seems to conflict with the aims of therapy and may even serve as a maintaining factor in the participant's eating disorder. Elizabeth's account of controlled eating definitely felt different to that of the others which was likely because she is the only one in recovery and therefore reflecting back on past experiences (throughout this theme and the others). She believes that her BN was maintained through this controlled/restrictive eating in that she was

bingeing because she was hungry. This reflection on hunger being a trigger to bingeing leads nicely onto the second theme.

3.2 Embodied and contextual accounts of bingeing

The underlying question in this theme of what leads to a binge episode for individuals with BN is not an easy one to answer. All participants gave a number of different potential triggers to a binge, often contradicting themselves along the way. For example:

"...I want to use the term an emotional eater because if it's a good day and... I'm really happy and I'm like oh I want to eat and so I'll eat...and then I'm like oh I really enjoyed that and then I'll have something else and then before I know it...I've binged...to an extent that I didn't want to." (Jo, lines 63-72)

But then

"...when I start to binge... there might times there was definitely like an emotional trigger... that bad feeling, that tense feeling that I get if I don't if I don't do it it just gets worse..." (Jo, lines 276-283)

Jo's account of being an 'emotional eater' sums up accurately the experiences of all the participants. There is a definite consensus amongst participants that they eat when they are struggling to manage difficult emotions which they then try to escape from or avoid by bingeing. However, at other times bingeing can occur because they are happy:

"...usually when it's planned it will be when something's gone wrong maybe if I've had a really bad day..." (Leah, lines 64-66)

"...sometimes it happens now when I'm really happy..." (Leah, line 694)

This conflictual account gives rise to the notion that bingeing is going to happen no matter how the person is feeling. It is difficult to say why that might be, although Elizabeth reflects that it can be a *'deliberate response to feeling anything',* therefore all feelings are overwhelming. Another explanation could be that a feeling, no matter what that is, triggers an urge to binge, a sense that bingeing has got to be done and that nothing is going to stop it:

"...it's just like a compulsion it's like overbearing. It's not even like sometimes like you don't even want to do it sometimes it's just you feel like it's necessary..." (Grace, lines 15-18)

For Grace, bingeing is necessary, indicating that nothing else is going to alleviate either that 'compulsion' or the feelings associated with it. However, there is also the impression that sometimes she does want to binge (i.e. only sometimes she does not want to). This seems to be true across the participants. Binges are often planned and the participants talk about 'looking forward' to these occasions. Bingeing itself is described as being enjoyable:

"...I'd get a slight amount of enjoyment out of it because I'm eating food that I like..." (Anna, lines 59-60)

"...I know I'm going to eat that much food...and then that'll be my night of indulgence..." (Leah, lines 842-844)

"Like it's almost like euphoric when it's happening you're like yes this is great like all the sugar from the food and everything you're just like loving it..." (Grace, lines 63-66)

There is a definite sense of naughtiness in these accounts with the idea that a binge is a night of indulgence, something which shouldn't really be done. Anna seems almost hesitant or ashamed to say that she enjoys bingeing, again giving the impression that it shouldn't be done. These examples link back to theme one in terms of the discussion around restriction. In one of Jo's examples she talked about her binge consisting of foods she would not normally have, indicating a possibility that, during a binge episode, participants are allowing themselves foods they enjoy which they would not otherwise allow themselves to have. This gives a sense that a binge is giving in to temptation:

"...I couldn't just have um a line of chocolate from a chocolate bar because if I had that line then I'd want the next line and the next line and the next line..." (Jo, lines 464-467)

For some participants, bingeing was linked to hunger and possibly an urge to eat (e.g. '*this primal urge of hunger like would come over'*). As with the emotional response, the urge could take on many guises. Participants describe it as a 'compulsion', 'hunger', 'tense feeling' (Jo), a person in your head (Anna) or simply an urge to eat (Leah) with no real definition or account of what that urge feels like. On the other hand, Grace's description of a binge being euphoric (see above) could indicate that the urge is similar to desire and to possibly a want to feel the euphoria that bingeing brings.

In addition to internal triggers there were sometimes external, environmental triggers or situational influences to a binge. For some, there was a notion that bingeing could occur out of habit, for example, for Anna it occurred after her evening meal, in the same room each evening. For all it almost always occurred when they were alone and often in the evening:

"...well I've always sat I always sit and eat in the same room. I always have it set in the same way. I always eat my meal and then um I have to be kinda on my own..." (Anna, lines 103-105)

Overall, this theme explores the ways the participants make sense of being unable to avoid binge eating. They do this in different ways. Their interpretations of it are of mainly internal responses as a result of a feeling of some kind, either positive or negative, but that binge eating can also be as a response to habitual environmental factors. Some of the examples which have emerged as a result of this theme will be explored in the final three themes.

3.3 (During the binge) The point of no return

Despite the different interpretations described in the second super-ordinate theme, all of the participants gave similar accounts regarding the process of the binge itself. There was a consensus that once they had started to binge there was no going back, they could not stop, they would have to continue eating:

"...then eventually as I say I got to that point when I was I'd eaten most of the bag and I thought well I'm going to throw this up I may as well just carry on..." (Leah, lines 577-579)

"...yeah sometimes you're at a point when you're like oh ok might as well just carry on I'm going to do it anyway..." (Grace, lines 856-858)

Leah and Grace refer getting to a 'point' in their eating where they have to carry on. For others the 'point' in a binge seems to be when they feel uncomfortably full (Jo). However, for all,

it is as though they get to a point in either their eating or bingeing where the situation cannot be repaired. They cannot just stop eating and forget about it, they have to continue until they have eaten enough that they can go and purge. The damage has been done. Stopping the binge seemed almost like an alien concept to some of the participants:

"But then what would I...do if I stopped because...I've not eaten all of it...I don't know what I'd...do or what like practically I don't know what what I would do if I just kind of stopped half way through." (Jo, lines 357-362)

The panic can almost be heard in Jo's tone in this example. There are searching questions 'what would I do?' There is a need to carry on and it might cause panic if she had to stop the binge. There is no question that this can be stopped once it's started, she has to carry on until all the food has gone. This continued eating is the same for other participants. Once they have started eating they have to find as much food as they can to eat:

"...I think people expect us to be like ok that's done... they're like ok food's gone... you know it's not all gone like it may be finished on your plate but you know there's more like you know there's more in the cupboards..." (Grace, lines 125-130)

Grace talks about other people expecting her to just be able to finish her meal and then stop eating. There is a feeling here that Grace feels as though those expectations are too high for her and it is just something she cannot do. On the other hand, however, there is also a determination in Grace's tone, a determination that she will get to the food in the cupboards and continue eating. There is a similar feeling of determination in other accounts:

"...as soon as you start that's it you're on the you're on the train like you're not getting off like nothing will stop that train unless you get like well even if you get interrupted like you'll find a way so." (Elizabeth, lines 179-183)

Again, the determination in Elizabeth's account is that she will find a way to continue even if she is interrupted. This seems to corroborate the accounts that a binge cannot be stopped no matter what happens. It can also be linked back to theme two and the discussion around the participant's feelings of an urge to binge. It could be that the urge they get to binge is so strong that once they have started that feeling overpowers everything else and it has to be satisfied: the binge cannot be stopped.

In addition to continued eating, the binge episode itself was often described as frantic by the participants:

"It's more frantic when I do it say in the car because it's and then and I want to do it very quickly, I want to get it over and done with..." (Anna, lines 120-122)

Like Anna, all of the participants talked about eating quickly. For some eating quickly meant that they could get the binge 'over and done with' so they were less likely to get caught. For others, eating quickly had become a habit and they talked about eating quickly at all times:

"...I eat very quickly anyway so I don't give myself but again I don't know that I've always been like that or that's something I've learned..." (Jo, lines 180-183)

In addition to describing the binge as frantic, Leah, Grace and Jo imagined themselves as 'shovelling' the food in their mouths as they binged, with food often becoming tasteless, for example:

"In a way I think most people probably don't do like shovel all the food into their mouth. Most people probably sit there and you know taste the food whereas with me it's all/it's like shovelling..." (Leah, lines 117-120)

The term shovelling is suggestive of negative connotations around bingeing and there is a sense that bingeing is not a pleasant experience. This could be another function of eating quickly, so as not to actually experience the binge eating for a long period of time.

Overall, this theme sets the scene for what the experience is like for participants during a binge eating episode. There is a feeling for participants that once they start eating they cannot stop and that they get to a 'point' in their eating that they have to carry on which is likely to be when the binge episode starts. While participants said that sometimes they do not want to stop, there was also the experience that they cannot stop when they are bingeing and this has a sense of LoC over eating. The experience of LoC is discussed more exclusively in the fourth theme below.

3.4 Shifting in and out of a dissociative state

The concept of LoC often seemed difficult to talk about in the participants' accounts resulting in a lot of uncertainty within this theme.

Elizabeth describes bingeing and LoC as an out of body experience, like being in a trance-like state. Others described it as mindless, like a haze or mist, not thinking about it or as a sudden realisation at the end at what they had done, for example:

"...it would be like an out of body experience... a trance-like state and I I think that's fairly accurate like you're doing it but you're removed from it at the same time..." (Elizabeth, lines 19-26)

"...it's like a haze or like a mist or something and then it like lifts..." (Grace, lines 859-860)

There is a sense throughout the participants' accounts that there is a lack of awareness when losing control and bingeing. For example Jo talks about only being aware of how much she had eaten at the end of the binge (*'so before I know it I've devoured the whole bag')*. The idea that LoC is an out of body experience which results in a lack of realisation for one's actions is also corroborated by the fact that at some point through their interview all participants struggled to explain what LoC was and how it felt:

Interviewer: "[...]so what does the loss of control itself feel like?
Anna: "Um (pause) I don't know how to answer that one, I don't know, it it just feels like um (pause) I don't know. I really don't know how to answer that question." (Anna, lines 21-25)

This account suggests that Anna is struggling to access her memories associated with the event. This might suggest that the act of losing control itself is a subconscious process. Elizabeth agreed with this notion, describing LoC as dissociation:

"...you're not really I guess you're not really there whilst you're doing it because if you were you wouldn't be doing it like you kind of you kind of dissociate um what's happening and just like you're not really there..." (Elizabeth, lines 46-50)

The participants' accounts in theme three seemed to suggest that bingeing was associated with negative connotations, indicating that the binge experience itself is not a pleasant one. Elizabeth's account in the example here suggests the same: *'if you were [really there] you wouldn't be doing it'.* That the binge experience is so horrific one needs to detach oneself from it and, when questioned, Elizabeth even goes on to say that the dissociation is deliberate. From this, we might speculate that the act of losing control itself is a protective factor as it allows the individual to dissociate from the negative feelings they may experience both before and during a binge. This negative experience of bingeing seems to result in detachment from the whole process as can be seen in the following examples:

Interviewer: "[...]when you hear the term loss of control in terms of binge eating...does it conjure any images or words or anything?
Leah: "...my Mum's very very overweight um and I've watched her eat, this is horrible to say about your mother...she's just shoving food in her mouth without even you know tasting it or looking at what she's eating and when um I think of loss of control I actually think of my mother rather than me." (Leah, lines 154-165)

"Yeah because in the evening I just go straight to bed [after a binge]. Put my pillow over my head and go straight to bed so." (Anna, lines 284-285)

Both Leah and Jo would rather think of individuals with BED rather than themselves even though they both describe themselves in similar ways during the course of each of their

interviews. In Anna's example there is a sense that bingeing is too much to bear and that by putting her pillow over her head she can shut out the rest of the world. These examples might lend support to the notion that the experience of bingeing is not pleasant and there is a need to detach oneself from it, therefore resulting in the dissociation described by Elizabeth.

Given, therefore, this potential deliberate dissociation, is the act of losing control a subconscious process? While the participants in the current study may have been experiencing some dissociation there is some evidence in their accounts that their LoC was not entirely subconscious:

"...I mean it is controlled loss of control so like as soon as you flip that switch that's when you've lost control." (Elizabeth, lines 529-531)

"...I just think oh my God what have I done and I just (pause) (sighs) it's like a I know I know what I'm doing at the time but then it's like time just goes by and it's flown and all of a sudd/and it's like how did I get from there to here?" (Jo, lines 161-165)

Elizabeth's comments here suggest that LoC can be controlled and is not just done anywhere. There seems to be an element, therefore, of allowing yourself to lose control. This would also seem to suggest that LoC has an element of a conscious process to it. This is further supported by participant accounts of decision making processes they go through during a binge in terms of whether to continue or not:

Interviewer: "Is it a conscious decision to carry on though?"
Jo: (Pause) "Yeah I yeah I make the decision to carry on." (Jo, lines 429-430)

"...you just get like addicted to eating food then and it's just like oh ok like you've had one you're like oh ok I'll feel even better if I have like another..." (Grace, lines 1054-1056)

As can be seen from all of the accounts presented in this theme, the concept of LoC is a difficult one to explain. It seems neither a conscious nor subconscious process. It might be that individuals who binge and lose control are able to come in and out of conscious awareness, as is highlighted in Jo's example from lines 161-165 (see above). She knew what was happening but at the same time there was a sense of 'how did I get here?'

3.5 The negative consequences of bingeing

Throughout the accounts of all the participants there was a theme which suggested that the act of binge eating and losing control has negative consequences. These were discussed more than any of the other emerging themes in the analysis. However, given that the consequences of binge eating have received substantial attention in the literature thus far I have made the decision to discuss them more briefly here in a more supportive capacity to the existing literature (Wolfe et al., 2009). The negative consequences can be split into two sub-themes: Negative feelings and general consequences.

3.5.1 Negative Feelings

Quite simply the act of bingeing evoked a number of negative feelings within all of the participants including: generally feeling bad; feeling sad; ashamed; embarrassed; lonely; guilty; angry; irritable and anxious. For example:

"...sometimes I just want to cry and um hide..." (Anna, line 70)

"It's a lot more emotionally tolling I suppose like (laughs) it's like disgusting sometimes you're just crying you're like really angry with yourself..." (Grace, lines 478-480)

"And I never feel good at the end of it I never feel happy I always regret it." (Jo, lines 165-166)

The majority of the time these feelings were post-binge but occasionally participants talked about their feelings during the binge. Jo describes not feeling happy at the end of the binge. This is interesting given the discussion in theme two regarding binge antecedents and how negative feelings can trigger a binge. It begs the question why do individuals binge if they are going to feel as bad at the end as they did at the beginning? Elizabeth's reflections on the process may go some way to explain it:

"You've given yourself a problem to worry about that's not your problem. So you know you can spend all your life worrying about your binges but you're not actually worrying about any of the things that are really wrong with you." (Elizabeth, lines 692-696)

It seems that the negative feelings associated with bingeing are potentially more tolerable than the ones associated with other life events. When they are not it seems as though the bingeing and purging cycle starts again immediately:

"...I'll eat then I'll stop um probably go throw up and then I'll feel really bad so I'll say ok I'm saving the rest for tomorrow or whatever and then...it kind of goes away and then I start

again...until basically all the food's gone...and then the next day I'll go through the same cycle again." (Leah, lines 16-22)

The negative feelings at the end of a binge could also be another reason why some of the participants reported mainly bingeing in the evening (Anna, Jo and Elizabeth). As Anna said previously, she was able to go to bed immediately after bingeing and put her pillow over her head, potentially blocking out the negative feelings associated with bingeing.

3.5.2 General Consequences

In addition to negative feelings, the act of bingeing had a number of other negative consequences for the participants. Everyone except Jo found themselves stealing or taking other people's food or using measures to prevent themselves from doing so, for example:

"...I went to the cinema with my boyfriend...he got a large popcorn...when we got back um he went home and um he'd left the popcorn there and then I ate the whole bag..." (Leah, lines 551-555)

"So you know like that caused me quite a bit of a problem like cos I would eat like all my flatmate's food and ice cream and stuff..." (Elizabeth, lines 88-90)

As Elizabeth says, this can cause problems for the participants. Leah actually talked about having arguments with family members because of food she had taken. Anna also talked about arguments and the problems her BN could cause between her and her boyfriend. Others like Grace and Jo found themselves making excuses to friends and families so that they could either stay home or be alone in order to binge:

"Like my boyfriend's really good he tries all sorts and I'm I get really irritable when he's trying to help me. I get really um angry with him because I feel like he's telling me what to do and stuff and I don't want to be told what to do..." (Anna, lines 177-180)

"...I find myself starting to make exc/like and then I'll be thinking ok what what can I say to to kind of get out the house like get out the house for a little bit or what can I say to make them kind of leave for a little while..." (Jo, lines 720-724)

For Anna, the difficulty is other people seemingly trying to control her by telling her what to do which is similar to Grace's story in the first theme where she does not like being controlled by the meal plans as part of her therapy. Jo's example indicates the struggle living with BN can be by having to make excuses to be alone. Not only is there the potential for BN to put a strain on relationships, but the participants also talked about BN putting a physical strain on their bodies:

"...it also doesn't help going from the extremes of being really hungry and really liking the feeling of being hungry to being so full like I cannot move (laughs) um that's probably yeah that's probably not good for the actual physical body (Grace, lines 231-235)

This final super-ordinate theme has been concerned with the negative consequences of bingeing and BN in general. Bingeing is associated with negative feelings including feeling bad, embarrassment, guilt and shame. Some of the negative consequences include taking other people's food, making excuses and putting a physical strain on the body. There is a sense of struggle for the participants as they juggle the tolling emotions of wanting or needing to binge with the negative consequences of doing so.

4.0 DISCUSSION

The research aimed to examine the lived experiences of binge eating and loss of control (LoC) for individuals with BN. Five super-ordinate themes emerged from the data. These were: *'The meaning of food: The need for controlled eating'* which showed that participants tend to control their eating at times when they are not binge eating; *'Embodied and contextual accounts of bingeing'* which gave an indication of the participants' interpretations of the triggers to binge eating; *'(During the binge) the point of no return'* which showed that once a participant starts eating a large amount of food they find it difficult to stop; *'Shifting in and out of a dissociative state'* which explored the experience of LoC as both a subconscious and a conscious process and finally *'The negative consequences of bingeing'* which highlighted both the emotional and general consequences of binge eating for the participants.

The participants described categorising food as good and bad and controlling their portion sizes as much as possible when they are not bingeing. For some, this went as far as restrictive eating. There is an extensive body of literature which has examined the effects of restriction on binge eating in individuals with BN. Most authors argue that restrictive eating can increase the likelihood of the occurrence of binge eating in both the short and long-term for individuals with BN (Hetherington, Stoner, Anderson & Rolls, 2000; Zunker, Peterson, Crosby, Cao, Engel, Mitchell & Wonderlich, 2011). Dietary control has also been found to increase the urge to binge (Steiger, Lehoux, Gauvin, 1999). On the other hand, however, Lowe, Witt and Grossman (2013) found that those individuals with BN who were also dieting to lose weight reported fewer episodes of binge eating. Despite this discrepancy, dietary restraint in BN is one of the central maintaining mechanisms proposed by the CBT model for the treatment of BN (Fairburn, Marcus & Wilson, 1993). The findings in the current study seemed to suggest that restrained, over-

controlled or deprived eating (Jo would deprive herself of 'bad' foods during the day) could potentially lead to a binge, possibly due to hunger. This was explicitly reported by Elizabeth. The findings did seem to cautiously suggest, however, that participants experienced therapy as not working. While CBT is the 'gold standard' treatment offered to individuals with BN (see literature review), there is some evidence that not all individuals within this population respond to treatment (Halmi, 2013; Wilson, Fairburn, Agras, Walsh & Kraemer, 2002). Treatment resistance could be one explanation for the participants 'failed' therapy in the current study. Another explanation could be that therapy was not delivered to participants in the way it was intended (Waller, Stringer & Meyer, 2012), which seemed to be Elizabeth's experience. Alternatively, as explained by Grace, some of the participants may have felt controlled by their therapy and 'rebelled' against it. This indicates that there needs to be a balance within therapy of allowing individuals to feel in control of their recovery while at the same time addressing their issues of control. It was not within the scope of the current research to examine participant experiences of 'failed' therapy in detail but this could perhaps be the focus of future research, to perhaps address some of the current difficulties in effectively treating BN (Wilson, Grilo & Vitousek, 2007).

The second super-ordinate theme in the current study explored the participants' interpretations of what leads to a binge. In the literature these are constructed as triggers whereas in the current study, the participants added a layer of interpretation which offered them an explanation as to why they lose control during bingeing. Here, the participants often gave a number of factors which could lead to a binge including emotional triggers, both positive and negative, hunger, desire, an urge or compulsion and habit. All are well reported in the literature with the exception of positive emotional triggers (Abraham & Beumont, 1982; Orbanic, 2001; Wolfe et al., 2009). There is no clear explanation as to why the current study has found that

participants are reporting positive experiences and desires immediately prior to a binge episode. It could be that the urge to binge, as described by the participants, occurs at any time no matter what emotional state the person is in. Alternatively, the experience of positive emotions or desires could have led the participant to have a 'treat', therefore breaking their strict rules about eating (Polivy & Herman, 1985). As proposed by Robinson and Berridge (1993), it could be that the rewarding properties of a 'treat' make the individual want more of that food leading to a binge. Further research is required to understand the role of positive emotions in binge eating and whether they are associated with an urge or a want to eat more food.

In addition to the external triggers to binge eating, the participants in the current study also discussed the environmental factors which either lead to or allow a binge to occur. Similarly to findings in the literature, all of the participants felt more comfortable being alone during a binge and binge episodes usually happened in the evening (Wolfe et al., 2009). This later finding may be explained by Baumeister's (2003) theory of self-regulation and that our inner strength is weakened the more tired we are. Given that the participants in the current study were all attempting to control their diet at times when they were not bingeing, it might be that this self-control is weaker in the evening when participants are tired. The role of tiredness in binge eating might be an interesting topic for future research in this area.

In the third and fourth super-ordinate themes the concept of LoC was discussed. In the third, this was discussed more concretely in terms of the feelings of not being able to or not wanting to stop once a binge had started. In the fourth, LoC was described in more abstract terms as an out of body experience. There was a sense that LoC during binge eating served two functions. Firstly, it was described as *'controlled loss of control'*, in that by making the decision to binge, participants were allowing themselves to lose control. This could be as a response to

being over-controlled at other times, which could potentially be quite tiring for the individual to maintain, possibly resulting in the desire to binge. The second function of LoC seemed to be in order to dissociate from both difficult emotions and the unpleasant experience of the binge itself. These findings support those found by Lyons (1998) in individuals with BED. An increasing body of literature has examined the role of dissociation and escape in binge eating. Individuals with BN have been found to experience high levels of dissociation (Everill, Waller & Macdonald, 1995; Schumaker, Warren, Schreiber & Jackson, 1994; Hallings-Pott, Waller, Watson & Scragg, 2005). Heatherton and Baumeister (1991) proposed that binge eating is an escape from self-awareness (similar to dissociation) through the narrowing of attention to the immediate environment (the binge), removing the inhibitions around eating. More recently, Cowan and Heselmeyer (2011) examined the function of dissociation in BN. One particularly relevant function of dissociation in BN, however, suggests that dissociation disrupts thought processes. This disruption can occur both before and during a binge episode and the authors associate this with the feeling, described by individuals with BN, of being distant from their actions and thoughts during the binge. Cowan and Heselmeyer (2011) give examples from service-users who describe observing themselves from the outside, similar to participants in the current study.

While the finding of dissociation within BN is not a new phenomenon, what was interesting in the current research was the finding that participants were seemingly able to shift in and out of cognitive awareness. They described times when they would become aware of the amount of food they'd eaten and make the decision to carry on. This finding could be particularly useful in the treatment of BN in terms of supporting service-users to identify LoC and find alternative ways of coping with the negative feelings which arise from binge eating (Hallings-Pott et al. 2005).

The final theme examined the negative consequences experienced by the participants following a binge. All of the participants reported experiencing negative feelings including shame, embarrassment, sadness, guilt, loneliness and anxiety, all of which have been found to be experienced by individuals with BN in the literature (Abraham & Beumont, 1982; Wolfe et al., 2009). In addition to the internal consequences, the participants also described negative external consequences including taking other people's food, lying to or making excuses to others in order to be alone and the physical strain BN puts on the body. Again, negative external consequences have also been found in other studies (Broussard, 2005; Orbanic, 2001), although further research may be useful in this area, particularly to understand the impact on quality of life.

4.1 Evaluation

I feel that the current study has a number of strengths and limitations which should be discussed. Firstly, it is an important piece of research given it is the first of its kind to explore the functional role of LoC in binge eating episodes. Given that LoC is such a pivotal feature in the diagnosis of BN, I was surprised that this element of the disorder had not been explored before. In terms of the interviews themselves, while I found that participants were not able to talk in great length about LoC per se (possibly given the dissociative nature of it), they were able to talk in detail about binge eating as a whole. I found I had more data than I knew what to do with. I could have quite easily split the data into two. It did mean, however, that there were aspects of the experience which I was not able to pay as much attention to, for example the consequences of binge eating. Future research could focus on specific aspects of the binge process to help understand the process in more detail. This may, in turn, be useful for interventions to help understand more specifically how to support individuals with BN at different points in the binge

cycle. In addition to this, I did not focus at all on purging. This is an important aspect of BN and may wish to be considered as the topic for future IPA studies, again in order to inform intervention.

It is important to note that the participants in the current study were self-reported as either currently having symptoms of or previous symptoms of BN and diagnosis was not confirmed by a qualified clinician. I cannot, therefore be certain that participants had a clinical diagnosis of BN. However, based on the information from the EDE-Q, all of the participants (except Elizabeth who was in recovery) reported symptoms of BN at least weekly in the month prior to interview. In addition to this, I also interviewed two participants over Skype (Anna and Elizabeth). Anna's interview was shorter than the other participant's, however, it was also the first which could also account for the length. While the data was not as rich as that of the other participants, it still added to the body of data I analysed and supported much of what was said by others. I felt that interviewing Elizabeth over Skype did not affect the quality of the data.

In terms of my evaluation of my own research practice, I did find it difficult, initially, to make the transition from clinical interviewing (as a Clinical Psychologist in Training) to research interviewing. This was particularly difficult in terms of ensuring that I was not being too reflective in my interviewing style and rather keeping to responding to participant experience in an impartial way. However, after reflection and practise I felt I was able to interview more in keeping with IPA philosophy. I utilised reflection throughout my data collection and analysis. One such way of doing this formally is through a reflexive journal which is kept during analysis (Smith, 2007). This can be useful as it can track any preconceptions a researcher has about their data and help them to look at their analysis in light of prior experiences with the data (Larkin & Thompson, 2011 and Smith, 2007). I ensured that I was reflecting throughout my analysis and

noted my reflections on the transcript itself. As already discussed I felt that I did not come into the research with many preconceptions as to what I might find as I had little experience of working with individuals with eating disorders. I continued to reflect on this during analysis. I did not keep a formal reflexive journal and doing so may have offered my reflections more structure and made them easier to track. I feel this reflects my inexperience with using qualitative methods and is a tool I will use for future research projects.

Finally, I did not employ sample validation (where individuals eligible to take part, who did not, review the analysis) in the current study as recommended by Larkin and Thompson, (2011). This could effect the validity of the results as I have not ensured that my analysis is as other individuals with the disorder would view their experiences. In future studies I would ensure that I complete this type of validation procedure.

4.2 Summary of clinical implications

As already discussed, one of the clinical implications of the current study is the finding that participants are able to shift in and out of a dissociative state and that this could be useful in the treatment of BN. A second clinical implication is also in terms of therapy and suggests that therapists should be aware of the controlling characteristics of BN at times when individuals are not bingeing. For some individuals, there seems to be a dilemma regarding control with particular difficulty surrounding the controlling nature of some aspects of therapy. This needs exploring further in future research. Finally, it is also important to note that LoC during binge eating seems to serve two functions. Firstly, in response to being over-controlled at other times and allowing themselves to binge and secondly, in order to dissociate from difficult emotions. These need

exploration, clinically, during assessment and formulation. Again, both functions require further research in the future.

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PUBLIC DOMAIN BRIEFING DOCUMENT

Group CBT for bulimia nervosa and binge eating disorder and the experience of loss of control in bulimia nervosa.

The research was conducted by Sarah Beaumont as part of the Doctorate in Clinical Psychology at the University of Birmingham. The research was regularly supervised by Dr Michael Larkin, Academic Tutor, at the University of Birmingham.

There are two parts to the research. The first is a literature review which examines the effectiveness of group CBT for individuals with bulimia nervosa and/or binge eating disorder. The review searched three databases of journal articles and found 22 which matched specific search criteria. The findings suggest that group CBT is superior to waiting list control in the treatment of both bulimia nervosa and binge eating disorder. In the long term, group CBT seems to be as effective as CBT delivered individually. It seems to be superior to CBT delivered in a self-help format for the treatment of binge eating disorder and is as effective as other types of treatment delivered in group formats. Overall the research papers included in the review seem to support the use of group CBT in the treatment of bulimia nervosa and binge eating disorder, particularly when compared to waiting list control. Generally the research was of low quality according to a defined set of criteria for judging research quality. Therefore, further research of higher quality is needed in this field. In addition to that further research should be conducted which examines whether group CBT is as effective as CBT delivered individually in the treatment of both bulimia nervosa and binge eating disorder. The review has important implications for the delivery of treatment as therapy delivered in group settings is cost effective.

The second part is a research project which examined the experience of binge eating and loss of control for women with bulimia nervosa. Five women between the ages of 19 and 33 were either recruited from a charity website (Beat) or through word of mouth. All participants were interviewed about their experiences of binge eating and loss of control. The interviews were then analysed using Interpretative Phenomenological Analysis (IPA) which is a detailed way of analysing interview data. IPA helps to understand the experience from the perspective of the individual being interviewed. Once all five interviews had been analysed, five main themes emerged from the data. The first was *'The meaning of food: The need for controlled eating'* which showed that participants tend to categorise food as good and bad. When they are not binge eating they often try to control and restrict their eating in order to eat 'good' food in 'good' or small portion sizes. If participants do not control their eating when they are not bingeing it seems as though any food eaten could lead to a binge. This need for control then seems to conflict with the aims of therapy as the participants try to 'rebel' against it. This may then actually maintain the participant's eating disorder.

The second theme was called *'Embodied and contextual accounts of bingeing'* which gave an indication of the things the participants thought might lead to a binge. In this theme the participants included things such as the experience of positive and negative emotions, the urge to binge, the desire to binge and the enjoyment they get from bingeing. In addition to this, participants all said they prefer to be alone when they binge and binge eating usually, but not exclusively happens in the evening.

The third theme was regarding the binge itself. It was called *'(During the binge) the point of no return'* which showed that once a participant starts eating a large amount of food they find it difficult to stop. This seems to be when they lose control. Within this theme, the participants

also talked about the nature of the binge itself which they described as frantic. The participants also describe a determination to eat as much food as possible, even if they are interrupted.

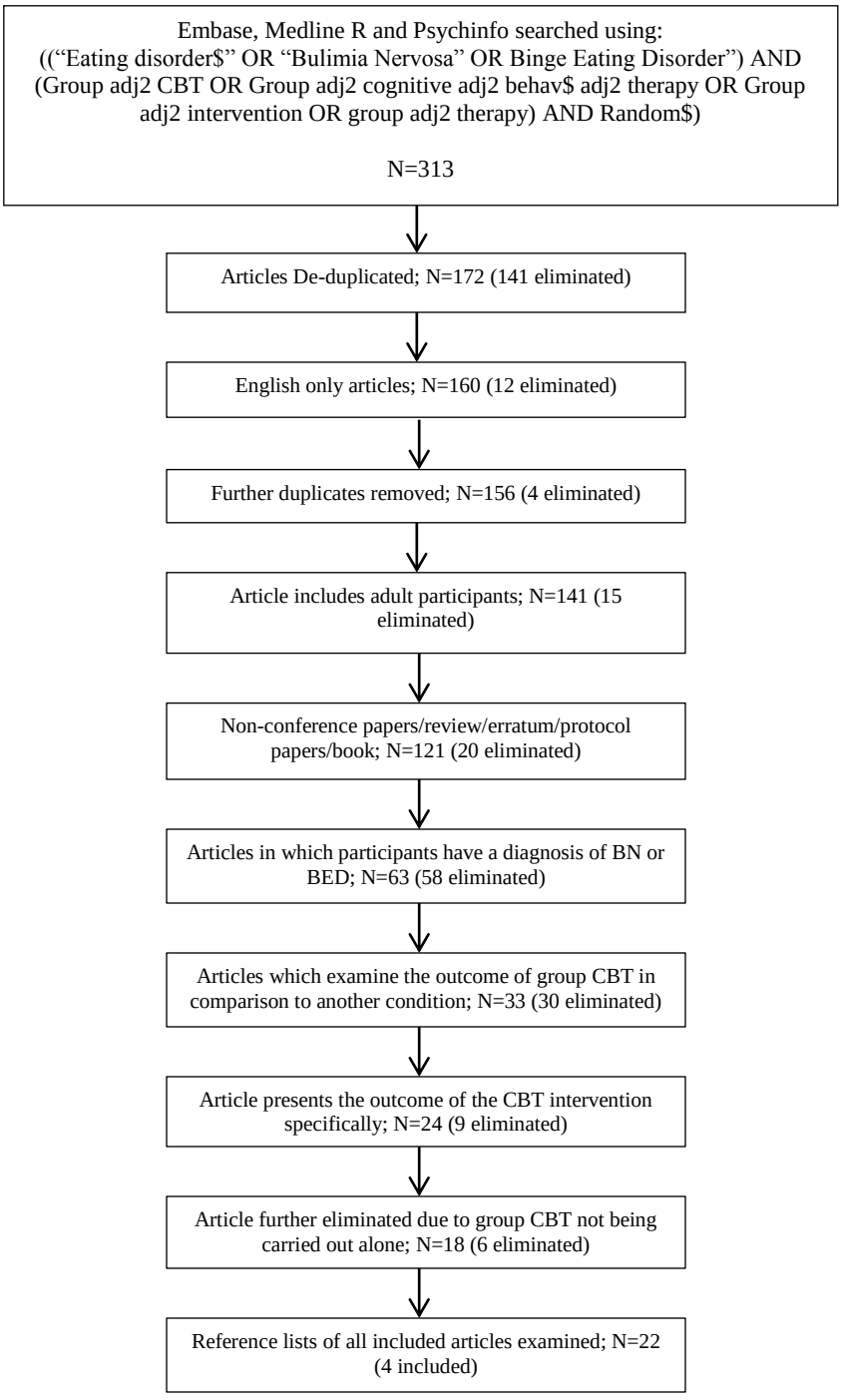
The fourth theme explored the experience of loss of control specifically and was called *'Shifting in and out of a dissociative state'*. The findings in this theme seem to suggest that, at times, most participants had experienced an absence of conscious awareness during a binge (dissociation). This means they do not have an awareness of their surroundings or what they are doing at this time. They seem to do this because the experience of binge eating itself is unpleasant. By bingeing without awareness they do not have to experience the unpleasantness of the binge. However, the participants also talked about times when they were aware of what they were doing and were able to make decisions about whether to continue eating or not. This suggests that the participants can shift in and out of this dissociative state.

Finally the fifth theme concentrates on *'The negative consequences of bingeing'*. This theme highlights both the emotional and general consequences of binge eating for the participants, which were most commonly negative. Some of the consequences listed here include, loneliness, sadness, guilt, shame, feeling bad, embarrassment, anxiety, taking other's food, making excuses to be alone (sometimes lying to others) and the physical toll on the body associated with binge eating.

Overall, the participants' accounts of restrictive or controlled eating, their feelings and urges immediately prior to a binge and the negative consequences afterwards are all well supported by the literature. These findings, therefore add to the findings of existing research. There is already evidence which suggests that people with bulimia nervosa experience dissociation and again these findings contribute to this evidence. What is interesting about the current study is the finding that participants can seemingly shift in and out of their dissociative

state (lack of awareness). This could be an important factor in the treatment of bulimia nervosa, particularly in understanding the role of loss of control in binge eating. As individuals bring themselves back into conscious awareness they could be supported to remain aware of their surroundings and feelings. By sitting with the feelings that individuals with bulimia nervosa find most uncomfortable they can learn to manage them without the need to binge eat.

Appendix 1: Literature review search strategy and selection flow chart



Appendix 2: Advertisement placed on Beat website.

Would you be interested in discussing your experience of loss of control during a binge eating episode? If so then please read on…

The guidelines for diagnosing someone as having Bulimia Nervosa (BN) or Binge Eating Disorder (BED) states that a person must eat an amount of food that is larger than most people would eat in one time period (usually 2 hours, known as a binge episode). That person must then feel a lack of control over their eating during that time. That means that the person has a feeling that they cannot control how much or what they are eating. However, no research has asked people with a diagnosis of BN or BED what this sense of lack of control means to them or how they experience it.

My name's Sarah Beaumont and I'm currently studying for my Doctorate in Clinical Psychology at the University of Birmingham. For my research thesis, as part of this course, I will examine the experiences of loss of control during a binge eating episode for people with Bulimia Nervosa or Binge Eating Disorder. This will be done through a private one-to-one interview which will last approximately 90 minutes. Participants will also be asked to complete a consent form and a questionnaire which asks questions about their eating disorder symptoms. I am hoping to talk to between 4 and 10 people.

Prior to taking part, potential participants will be asked to complete a set of screening questions including asking about their diagnosis, any other diagnoses they may have had and the length of time they have been in treatment.

I am specifically seeking to recruit participants who:

- Are over 18 and have a current diagnosis of Bulimia Nervosa or Binge Eating Disorder.
- Do not have a current diagnosis of psychosis and are not engaging in any self-harm behaviours or illicit substance misuse.
- Can speak English.
- Can talk in detail about their experiences of binge eating episodes.

All interviews will take place at the University of Birmingham and participants will be reimbursed up to £20 for their travel expenses. All participants will also be entered into a prize draw for the chance to win a £20 gift voucher.

If you would like to take part in this study, would like an information sheet or have any questions, please contact me on [email address] or you can phone on [phone number]. At this point you are in no obligation to take part in the study. Participants can withdraw from the study at any point up to and during the interview and up to two weeks after the interview has taken place.

[Contact details removed for confidentiality purposes]

Appendix 3: Participant information sheet.

UNIVERSITY OF BIRMINGHAM

Participant Information Sheet – For Participants Recruited via B-EAT

The experience of loss of control during a binge eating episode for people with Bulimia Nervosa and Binge Eating Disorder.

I'm Sarah Beaumont and I'm the lead investigator for this research project. I'm currently studying for my Doctorate in Clinical Psychology at the University of Birmingham. For my research thesis as part of this course I'm inviting you to take part in a research study examining your experiences of loss of control during a binge eating episode. Before you decide to take part it is important that you read and understand why the research is being done and what it will involve. Please read the following information leaflet carefully. It will help you decide whether or not to take part. You may talk to other people about it if you wish. Please ask me if you have any questions or are unclear about any of the information contained in this leaflet.

What is the purpose of the study?

The guidelines for diagnosing someone as having Bulimia Nervosa (BN) or Binge Eating Disorder (BED) state that a person must eat an amount of food that is larger than most people would eat in one time period (usually 2 hours, known as a binge episode). That person must then feel a lack of control over their eating during that time. That means that the person has a feeling that they cannot control how much or what they are eating. However, no research has asked people with a diagnosis of BN or BED what this sense of lack of control means to them or how they experience it.

The aim of this study is to ask individuals with a diagnosis of BN or BED about their experiences of loss of control over eating during a binge eating episode. In order to do this I will interview you about your experiences. Once all of the interviews have been completed some of the main points that have been said will be fed back to a focus group to see if the members of this group have had similar experiences to you. Any information that is fed back to this group will not identify you (see 'Will my information be kept confidential' section). Once I have had feedback from this group I will write a summary report. You can request a copy of this if you would like details of the findings of your interview. I hope the information I get will help healthcare professionals to better support people with a diagnosis of BN or BED.

The study is also part of my Doctorate in Clinical Psychology. Once written up, the study will be submitted to the University of Birmingham as part of this course. This means that I am supervised by a researcher at the University of Birmingham. His contact details, along with mine, can also be found at the end of this information sheet.

What will happen to me if I take part?

Before you take part I will speak to you over the phone to complete a set of screening questions which will include asking about your diagnosis, any other diagnoses you may have had and the length of time you have been in treatment. This is to help identify whether taking part would be right for you. If it is right

for you and you then decide to take part in the study you will meet with me on one occasion. This will be at the University of Birmingham and you will be reimbursed for travel expenses up to the sum of £20.

When we meet you will be asked to complete a consent form. You will also be asked to complete a questionnaire which asks you about your eating disorder. This is to give me an idea about your current symptoms. This will not take long to complete as the main focus of our meeting is a research interview about your experiences. This is like a conversation in which I'll ask you some open-ended questions but it will be mainly led by you. The interview should not last any longer than 90 minutes. It will be audio-taped and then written up word-for-word at a later date. The whole meeting should last no longer than 2.5 hours.

Everybody who takes part in the study will go into a prize draw to receive a £20 gift voucher. This will be drawn once the final participant has completed their interview. This will be no later than 30th April 2014.

What do I have to do?
If you would like to take part please return the attached slip in the provided stamped addressed envelope or contact me on the number below.

Once you have agreed to take part I will arrange an appointment time that is convenient for you. At the appointment you will complete a consent form and questionnaire. You will also have to complete an interview with me lasting about 90 minutes. The meeting will take place at the University of Birmingham which may mean some travelling. You will be reimbursed for you travel expenses up to the sum of £20.

Do I have to take part?
No. You can decide whether to take part or not. If you decide not to take part you do not need to give a reason. You do not need to complete the attached slip if you have decided not to take part. If you decide to take part but would like to withdraw, you can do so before the interview takes place, during the interview and up to two weeks after. This is because after that time period the data will be analysed and will not be able to be removed from the study.

What are the possible disadvantages of taking part?
Some people may find talking about a binge eating episode distressing. If you find you become distressed, the interview can be stopped at any time. I am a trainee clinical psychologist and will be able to support you if you become distressed at the time of the interview.

Some people may become distressed after the interview has ended and the interviewer has left. You will be given contact details for a qualified clinical psychologist if you would like to talk to someone.

What are the possible benefits of taking part?
You may find talking about a potentially distressing time in your life therapeutic, however, it is anticipated that, for most, there will be no other benefits.

Will you tell my GP?
Yes I will need to tell your GP and health care professional involved in your care that you are taking part in the study. In order to do this I will need your date of birth and address in order for your GP to identify you from their records.

What if there is a problem?
Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. If you would like to make a complaint please contact Dr Theresa Powell, Clinical

Psychology Doctorate Course Director, School of Psychology, University of Birmingham, Edgbaston, Birmingham, B15 2TT. Alternatively you can phone [phone number].

Will my information be kept confidential?
Yes. Your interview will be audio-taped and then transferred onto a password protected device. The original audio will be deleted. This will then be written up word-for-word, known as a transcript, anonymously so that you cannot be identified. All names, places and types of work will be changed so that the data remains anonymous. The transcript will be kept at the University of Birmingham for 10 years after the end of my degree. The questionnaire data will also be kept confidential and will identify you by a number known only to Sarah Beaumont.

Parts of the anonymised transcripts may be used as part of feedback to the focus group or as part of the written report for the study. Some parts may also be used for training purposes. Everything will be kept anonymous so that you will not be identified.

What will happen to the results of the study?
I will analyse your interview and compare to what the other people interviewed have said. The main themes of the interviews will be fed back to another group of people with BN or BED who have not been interviewed. This will be to get further feedback on the experiences of people with BN or BED during a binge eating episode.

The results from the study will be written up and submitted to the University of Birmingham as part of the lead investigator's Doctoral studies. The results may also be published in academic journals. There will also be a summary report of which you can request a copy.

For further information on any aspect of this study please contact:
[Lead investigator contact details removed for confidentiality purposes]

[Supervisor contact details removed for confidentiality purposes]

Reply Slip

Name: _____

Telephone Number: _____

Email Address: _____

Convenient time to be contacted by telephone: _____

Please tick as appropriate:

I am interested in taking part in the study, please contact me to arrange a time to meet ☐

Please contact me as I have some more questions or would like some more information about the study (I understand that by ticking this box I am not agreeing to take part in the study) ☐

Appendix 4: Consent form.

Participant Identification Number:
Title of study: The experience of loss of control during a binge eating episode for those people with Bulimia Nervosa and Binge Eating Disorder
Name of researcher: Sarah Beaumont

Consent Form

Please initial box

1. I can confirm that I have read and understand the information sheet for the above study. I have been given the opportunity to ask any questions and have had these answered satisfactorily. ☐
2. I understand that participation is voluntary. I can withdraw from the study at any time before The interview takes place or during the interview and up to two weeks after the interview. I understand that my withdrawal will not affect my medical care. ☐
3. I understand that I will be interviewed by the above named researcher and that this interview will be audio-taped. I understand that my interview will be written up word-for-word (transcribed) anonymously so that I cannot be identified. ☐
4. I understand that anything I say in my interview may be used as a quote in the final written report and that parts of the transcript may be used for teaching purposes. ☐
5. I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from the University of Birmingham, regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records. ☐
6. I understand that my GP/health professional will be informed that I am taking part in the above study. I understand that I will need to provide my date of birth and address in order to identify me to my GP or health professional. ☐

GP name and address: _____

Health care professional name and address: _____

Date of birth and address: _____

7. I agree to take part in the above study. ☐

Name of participant	**Date**	**Signature**
Name of person taking consent	**Date**	**Signature**

Appendix 5: EDE-Q – Removed for copyright purposes

Appendix 6: Interview schedule.

1. Can you tell me about your experiences of the times when you've had what you or others would call a binge?
    a. Can you tell me more about this?
    b. What is this experience like for you?
    c. Can you tell me what happens when you find yourself eating more than usual?
    d. What's going on in your head?
    e. What are you thinking and feeling at this time?
    f. Do you feel able to stop during these times? What leads you to continue to eat? What's going on in your head? What is it like when you feel like you can't stop? Is it something you want to stop?
    g. How would I know that this was happening to me?
    h. What images or words are coming up when I ask you to think about bingeing?
    i. Can you describe them to me? Any feelings associated with them?
    j. What do you think of the term loss of control in relation to binge eating?
    k. Do you feel you have ever lost control during these times?
    l. Are there times when you've had a binge and not lost control? Can you tell me more about them? How are they different?
    m. How do you know you've lost control?
    n. Are there any times when you are eating, binge or otherwise, when you felt in control of your eating? What's different about these times?

2. If the invisible man was in the room with you when you were having what you would call a binge what would they describe was happening?
    a. What would they say if they had to give a step-by-step account?

3. When you first start to realise you're going to binge what do you notice around you?
    a. What might you be doing at the time?
    b. Is there a time when the urge is more likely to come on?
    c. Are you aware that this might happen?
    d. What's going on in your head?
    e. What kinds of things are you thinking and feeling before? Are these different to the thoughts and feelings you experience after?
    f. Do you notice any changes within your body or in your head?

4. Can you tell me what happens with the 5 minutes after you've finished eating?
    a. What's going on in your head?
    b. What are you thinking and feeling?

    c. Do you notice any changes?

5. Are there any times when you think you might binge but don't?
    a. What's different about these times?
    b. Are your thoughts or feelings different?

Any coping strategies that help you to either prevent or stop a binge?

Appendix 7: GP letter

School of Psychology
University of Birmingham
Edgbaston
Birmingham
B15 2TT

Date:

GP name
Address

Dear Dr:

RE: Participant's name
Address
Date of Birth

The above named lady/man has taken part in a research study examining loss of control during a binge eating episode for people with Bulimia Nervosa and Binge Eating Disorder.

[Name of participant] has taken part in a research interview examining their experiences of loss of control. This is unlikely to cause distress, but in the event that [name of participant] does wish to speak to someone about their experience of taking part, they have been given the option of speaking to Dr Ruth Howard, a Clinical Psychologist attached to the University of Birmingham Clinical Psychology Course. If [name of participant] is receiving support from an eating disorders service they will also have the option of speaking to the health professional involved in their care. It is possible that [name] may also decide to come and speak to you, particularly if they are not receiving support from the eating disorders service at present.

Yours Sincerely

Sarah Beaumont (Chief Investigator)
Trainee Clinical Psychologist

Dr Michael Larkin (Supervisor)
Senior Research Tutor, University of Birmingham

Appendix 8: Ethical approval letter – Removed for confidentiality purposes

Appendix 9: Examples of each stage of analysis

Example of initial coding of interview 2:

Initial noting	Transcript	Objects of meaning and their codes
Love food	Um (pause) usually it's I don't know thing is I really love food (laughs) and um I might just fancy something and then (pause) I mean with the when I say when I plan it usually it will be	**Food** - Something loved - A craving? **Planned Binge**
Chinese	something like a lot of Chinese or something like that but um (pause) but when it's um prior to it when I first start eating I kind	- A takeaway – Chinese **Eating**
Eat fast	of um I'm/I eat quite fast at first and then it's only when I've got/I don't suppose I really think anything of it until I get to half way and then that's when it kind	- Done quickly
Panic	of panics you know I/I feel panicked because all of a sudden I'm faced with this thing of like	- Panics you - Something to be afraid of? - A conflict?
Dilemma	do I stop now because I'm full or do I just carry on. Um but I wouldn't say when/the times I have/if we're talking about the control/the times I've lost control	**Loss of control**
	I haven't actually felt that bad prior to it. I've just eaten as anyone else would sit down for a meal and then half way through	- Don't always feel bad before - Should feel bad before? **Eating**
Feel bad	that's when I feel really bad and then that's usually when I eat.	- Feeling bad

Excerpt from the table of codes for interview 2:

Object of meaning	**Code**
Binge	Following restriction (I.2; p.1) An urge to eat (I.2; p.1) A struggle (I.2; p.1) A want to eat everything (I.2; p.1) Bain of life (I.2; p.1) Something that needs preparing for (I.2; p.1) Done on own (I.2; p.1, 17, 17, 23) An intention (1.2; p.1) Cyclical (I.2; p.1, 1) Something to feel bad about (I.2; p.1) Guilt about eating so much (I.2; p.2)

	Giving in/resignation (I.2; p.2, 2, 2) Feelings are difficult to cope with (I.2; p.2) Ruins recovery (I.2; p.2) Inevitable (I.2; p.2) Not a normal portion (I.2; p.2, 21) Continued eating (I.2; p.2, 21, 21) Planned (I2; p.3, 16, 23, 23)
Loss of control	Don't always feel bad beforehand (I.2; p.4) Should feel bad beforehand? (I.2; p.4) Feeling full and still going (I.2; p.4) Can't stop (I.2; p.4, 5, 18?, 19, 20) Full body (I.2; p.5; 10) Too much effort to stop (I.2; p.5) Getting past a certain point (I.2; p.5, 20, 20)

Excerpt from the table of clusters/emerging themes for all interviews:

Cluster	**Evidence**
Giving in/urges	"It doesn't go away I mean I've tried to just go to bed but I still have got to get up and do it." (Anna, lines 192-193) "I'll suddenly get this kind of urge to eat" (Leah, line 7) "...it's just like a compulsion it's like overbearing. It's not even like sometimes like you don't even want to do it sometimes it's just you feel like it's necessary..." (Grace, lines 15-18) "...I notice that I get the feeling first and then I'll start to think about then I'll start to think that this is what I want to do and I feel like I need to do so it..." (Jo, lines 652-654) "...once you've made the decision and like you've given into it..." (Elizabeth, lines 511-512)
Inability to stop/ Continued eating	"...then when I finish my meal I just start to binge on everything..." (Anna, lines 14-15) "...I'm not enjoying the feeling um I don't even know what's happening at that time, why I'm still doing it, it's just like I can't stop." (Leah, lines 149-152) "...you can try and appease it and like slow it down but it's very very difficult to actually full on say ok stop now without even feeling bad." (Grace, lines 122-125) "...if I had control of it I'd just say do you know what forget it I'd be able to throw it in the bin and leave it but I can't no matter how full I'm feeling I'll finish it." (Jo, lines 424-427) "...there's no way there's no way you could yeah there's no way you could stop really..." (Elizabeth, lines 164-166)

Emerging themes:

Giving in/urges
Sense of struggle/difficulty
A want/desire/enjoyment
Planning a binge
Negative feelings
Normal Vs Abnormal
Inability to stop/continued eating
Subconscious/conscious process
Environment/situational influences
Point of no return
Willpower
Negative effects of bingeing/losing control
Contradictions
Self-talk
Comparing self to others
Difficult to talk about/explain
Speed of eating
Control Vs loss of control
Triggers
Therapy

Super-ordinate themes:

Super-ordinate theme	**Contributing emerging themes**
The meaning of food: The need for controlled eating	Control Vs loss of control Therapy
Embodied and contextual accounts of bingeing	Giving in/urges A want/desire/enjoyment Planning a binge Environment/situational influences Triggers
During the binge: The point of no return	Inability to stop/continued eating Point of no return Speed of eating
Shifting in and out of a dissociative state	Subconscious/conscious process Self-talk Difficult to talk about/explain
The negative consequences of bingeing	A sense of struggle/difficulty Negative feelings Normal Vs abnormal Negative effects of bingeing/losing control

The emerging theme ‘contradictions’ appears throughout the five super-ordinate themes
‘Comparing self to others’ was not used in the final analysis

Prevalence of super-ordinate themes

Super-ordinate theme	Anna	Leah	Grace	Jo	Elizabeth	Present in over half of sample?
The meaning of food: The need for controlled eating	Yes	Yes	Yes	Yes	Yes	Yes
Embodied and contextual accounts of bingeing	Yes	Yes	Yes	Yes	Yes	Yes
During the binge: The point of no return	Yes	Yes	Yes	Yes	Yes	Yes
Shifting in and out of a dissociative state	Yes	Yes	Yes	Yes	Yes	Yes
The negative consequences of bingeing	Yes	Yes	Yes	Yes	Yes	Yes

Appendix 10: Guidelines for authors, Clinical Psychology review – Removed for copyright purposes

Appendix 11: Guidelines for authors, Appetite –Removed for copyright purposes