# Interpersonal functioning and eating-related psychopathology

By

Michelle Haslam

Doctoral Thesis

Submitted in partial fulfilment of the requirements
for the award of Doctor of Philosophy of
Loughborough University

September 2011



Loughborough University

Loughborough University

# Thesis Access Form

**Copy No**……**Location**……..….

**Author** Michelle Haslam

**Title** Interpersonal functioning and eating- related psychopathology

**Status of access** OPEN

**Moratorium Period** N/A

**Conditions of access approved by** (CAPITALS):…..……

**Supervisor** (Signature)……...……...

**Department of** School of Sport, Exercise and Health Sciences

**Author's Declaration**: *I agree the following conditions:*

Open access work shall be made available (in the University and externally) and reproduced as necessary at the discretion of the University Librarian or Head of Department. It may also be digitised by the British Library and made freely available on the Internet to registered users of the EThOS service subject to the EThOS supply agreements.

*The statement itself shall apply to **ALL** copies including electronic copies:*

**This copy has been supplied on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.**

**Restricted/confidential work:** All access and any photocopying shall be strictly subject to written permission from the University Head of Department and any external sponsor, if any.

**Author's signature**…….Date……..……...……...

| **users declaration:** for signature during any Moratorium period (Not Open work): ***I undertake to uphold the above conditions:*** | | | |
|---|---|---|---|
| Date | Name (CAPITALS) | Signature | Address |
| | | | |
| | | | |
| | | | |
| | | | |

Loughborough University

CERTIFICATE OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this thesis, that the original work is my own except as specified in acknowledgments or in footnotes, and that neither the thesis nor the original work contained therein has been submitted to this or any other institution for a degree.

…… ( Signed )

…… ( Date)

**Abstract**

Maladaptive interpersonal functioning is considered typical of eating disorders. The present thesis aimed to add to existing knowledge of interpersonal functioning in the eating disorders in terms of both symptomatology and treatment. In **Study 1**, relationships were found between eating disorder attitudes and several types of poor interpersonal functioning. These associations were present when controlling for depression and anxiety. **Study 2** found that generalised interpersonal problems were more likely to be reported by women with bulimic disorders than comparison women, apart from problems with being too open, which were more likely to be reported by comparison women. In **Study 3**, individuals with self identified eating disorders were found to have poorer problem solving skills in specific interpersonal situations than healthy controls, generating less means to solve the problem, with these means being significantly less effective and less specific than those generated by healthy controls. In **Study 4**, the experience of an invalidating childhood environment was explored as a potential predictor of adult interpersonal problems in the eating disorders. Viewing the expression of emotions as a sign of weakness was a mediator of the relationship between having a more invalidating mother and adult eating concern in a nonclinical population. In **Study 5**, the interpersonal experiences of patients with bulimic disorders are explored using qualitative methodology. They report a range of problems characterised by social avoidance, social anxiety, non-assertiveness, and a difficulty with being genuine in relationships. In **Study 6**, patients reported their experiences of interpersonal psychotherapy for bulimic disorders. In general, they experienced the therapy as positive and beneficial. They express that it helped them address a range of interpersonal problems, and reduced but did not cure their eating disordered behaviours. Patients liked that therapy focused on both interpersonal relationships and eating. In **Study 7**, interpersonal psychotherapists discussed their perceptions of the modified therapy. They identified several factors as being related to outcome, such as the existence or willingness to build a support network, motivation to change, a clear interpersonal problem identified in the patient, level of depression, duration of the eating disorder and keeping therapy focused on the interpersonal. Results of these studies suggest that those with higher levels of eating disorder related attitudes and behaviours often have significant problems with interpersonal functioning. This thesis supports the use of interpersonal psychotherapy as a viable treatment approach to the eating disorders. It also supports the use of the modified version of the therapy, which addresses eating as well as interpersonal functioning.

**Keywords:** Eating disorder, bulimia nervosa, anorexia nervosa, interpersonal functioning, interpersonal problems, interpersonal psychotherapy

**Acknowledgements**

Of course I wish to thank my colleagues from the LUCRED team, whose support has been invaluable over the last three years. Every one of them has taught me something, challenged me and given me the opportunity to learn from my experience. I could not have asked for a better role model than my supervisor, Professor Caroline Meyer. She is thanked for her support and endless faith in me over the last three years. Dr Claire Farrow is thanked for her valuable contributions, and Dr Hilary McDermott is thanked for her qualitative research advice and support. My thanks also go to my fellow PhD students, Hannah, Faye, Zoe, Vicki, Ceri, Stacey, Huw, Laura, Carolyn, Carrie and honorary member Jen. I cannot count the number of times they have supported me and each other over the last three years. It really has been a pleasure and I will miss being in the office very much. Vaithehy is also thanked for our many entertaining yet educational lunches over the past three years. Completing a PhD is supposedly a solitary experience, but it does not feel that way to me at all.

I wish to thank Dr Jon Arcelus for his invaluable contributions and the clinical knowledge that he has shared with me over the past three years. I am grateful to all the staff at Leicester Eating Disorder Service for helping me with data collection and to those who took part in focus groups. In particular I would like to thank Debbie Whight for making it her mission to recruit participants. Staff members at First Steps and Freed Beeches eating disorder support services are also thanked for their assistance and enthusiasm in data collection. I would like to acknowledge Professor Glenn Waller, without whom I would never have pursued a PhD. Of course I would like to thank my participants, without whom this research would not have been possible.

I wish to thank Mum, Paul, Sheila, Richard and Nan for everything that they have done for me over the years, their pride and their unwavering faith in me. There have been many friends that have supported me over the last three years. In particular, I would like to thank Lindsey, for inspiring me in many ways and for being like the big sister I never had.

**Dedication**

I wish to dedicate my work to my mother Jeannette and to the memory of my father Jeff. Thank you, Mum, for working so hard, staying strong and doing your best to help others. Thank you, Dad, for inspiring me to help people with mental health problems. Thank you, Mum and Dad, for making me the person I am today.

*This is for you, J & J.*

## Publications arising from this thesis

### Book chapter

Arcelus, J., Whight, D., & Haslam, M. (2011). Interpersonal problems in people with bulimia nervosa and the role of Interpersonal therapy. In: P. J. Hay (Ed). *New insights into the prevention and treatment of bulimia nervosa.* InTech Publishing.

### In Press

Haslam, M., Arcelus, J., Farrow, C., & Meyer, C. (Under consideration). Invalidating childhood environments and eating psychopathology among young women: The mediating role of attitudes towards emotional expression. *European Eating Disorder Review.*

### Prepared manuscripts

.

Haslam, M., Arcelus, J., McDermott, H., Farrow, C., & Meyer, C. (Under consideration). Patient's perspectives on interpersonal psychotherapy for bulimic disorders.

Haslam, M., Arcelus, J., Farrow, C., & Meyer, C. (Under preparation). Interpersonal functioning in the eating disorders: a systematic review.

Haslam, M., Arcelus, J., Farrow, C., & Meyer, C. (Under preparation). Interpersonal problem solving in women with self-identified eating disorders.

### Conference contributions

Haslam, M., McDermott, H., Arcelus, J., Farrow, C., & Meyer, C. (2011). Patient's perspectives on interpersonal psychotherapy for bulimic disorders. International Society of Interpersonal Psychotherapy Conference, Amsterdam (verbal presentation).

Haslam, M., Arcelus, J., & Meyer, C. (2010). Interpersonal problems in bulimic disorders. International Eating Disorder Conference, London (poster presentation).

Haslam, M., Arcelus, J., & Meyer, C. (2009). Interpersonal functioning in the eating disorders. LUCRED conference, Loughborough University (poster presentation).

Haslam, M., Meyer, C., & Arcelus, J. (2009). Interpersonal functioning and eating disorder related attitudes. PsyPAG Annual conference, Cardiff (verbal presentation).

## List of Contents

## List of tables

## List of figures

## Abbreviations

| | |
|---|---|
| AN | Anorexia nervosa |
| APA | American Psychiatric Association |
| BED | Binge eating disorder |
| BN | Bulimia nervosa |
| BMI | Body Mass Index |
| CBT | Cognitive behavioural therapy |
| CBT-BN | Cognitive behavioural therapy for bulimia nervosa |
| CSA | Childhood sexual abuse |
| DSM | Diagnostic and statistical manual of mental disorders |
| EDNOS | Eating disorders not otherwise specified |
| ICD-10 | The International Statistical Classification of Diseases and Related Health Problems 10th Revision |
| IPT | Interpersonal psychotherapy |
| IPT-BN | Interpersonal psychotherapy for bulimia nervosa |
| NHS | National Health Service |
| NICE | National Institute of Clinical Excellence |
| SD | Standard Deviation |
| WHO | World Health Organisation |

# Chapter 1

# Introduction

# 1. Introduction

## 1.1. Introduction to the chapter

The overall aim of this thesis is to explore the relationship between maladaptive interpersonal functioning and eating disorder related psychopathology. The aim of this chapter is to define the core elements concerned in the hypotheses that follow in later chapters. Firstly, a description of eating disorder diagnostic criteria is given. The prevalence.of eating disorders is then discussed. Additionally, this section will critically evaluate the current research regarding the prognosis, risk and maintenance factors for these eating disorders. Next, the central concept of this thesis, interpersonal functioning will be defined. The evidence that poor interpersonal functioning is associated with general psychopathology is described, and research exploring the links between eating disorder symptomatology and maladaptive interpersonal functioning is systematically reviewed. Thirdly, the literature exploring interpersonal psychotherapy (IPT) for both depression and bulimic disorders will be described and evaluated. Finally, the chapter will turn to a more recent development in the field of IPT. The use of a modified version of the therapy (IPT-BN) for bulimic disorders is described and the considerable gaps in existing research literature that this thesis aims to address are discussed.

This introduction forms the basis of two publications:

Arcelus, J., Whight, D., & Haslam, M. (2011). Interpersonal problems in people with bulimia nervosa and the role of Interpersonal therapy. In: P. J. Hay (Ed). *New insights into the prevention and treatment of bulimia nervosa.* InTech Publishing.

Haslam, M., Arcelus, J., & Meyer, C. (In preparation). Interpersonal functioning in the eating disorders: a systematic review.

## 1.2. Eating disorders

### 1.2.1. Introduction

Eating disorders cause significant physical, psychological and social disturbances in young women, and to a lesser extent in young men (NICE, 2004). They are characterised by severe disturbances in eating behaviour; however these disturbances are by no means homogenous and include a wide range of attitudes, emotions and behaviours.

### 1.2.2. Diagnostic criteria for the eating disorders

There are two classification systems for the eating disorders: that proposed by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV - American Psychiatric

Association, 1994), and that proposed by the International Classification of Diseases (ICD – World Health Organisation, 1992). This chapter describes both classification systems as while the most commonly used diagnostic system in research is the DSM-IV, the ICD-10 classification system is used widely in treatment centres across the UK.

While diagnostic schemes attempt to capture and compartmentalise these diverse disturbances, such systems have proven to have limited clinical and academic application (e.g. Milos, Spindler & Schnyder, 2005). Despite continual modification of diagnostic categories with each updated edition of existing diagnostic manuals, there is still substantial overlap between the symptomatology of the different classifications and confusion as to where one begins and another ends.

This section will describe the diagnostic categories that are proposed in the current editions of the DSM and ICD, the changes that have been proposed for the fifth edition of the DSM, and the limitations of these diagnostic categories.

1.2.2.1. Diagnostic criteria for anorexia nervosa

The current diagnostic criteria for AN according to DSM-IV are displayed in Table 1.1. There are four clinical features required for a diagnosis of AN to be made. These include a refusal to maintain body weight at or above a minimally normal weight for age and height, an intense fear of weight gain despite maintaining a low weight, overevaluation of shape and weight as a means of judging self worth, and amenorrhea in post-menarchal females.

Table 1.1. Current diagnostic criteria for AN according to DSM-IV (APA, 1994)

| |
|---|
| A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g. weight loss leading to maintenance of body weight less than 8.5 per cent of that expected; or failure to make expected weight gain during period of growing, leading to body weight less than 85% of that expected). |
| B. Intense fear of gaining weight or becoming fat, even though underweight. |
| C. Disturbance in the way in which the body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, denial of the seriousness of the current low body weight. |
| D. In postmenarcheal females, amenorrhoea, i.e. the absence of at least three consecutive menstrual cycles. |

In addition to the above criteria, there are also two subtypes of AN. If an individual regularly engages in binge eating or purging behaviour they are referred to as having AN binge eating / purging type. If these behaviours are not present, they are referred to as having AN restricting

type (APA, 1994).

Table 1.2. Current diagnostic criteria for AN according to ICD-10 (WHO, 1992)

| |
|---|
| A. Body weight is maintained at least 15% below that expected (either lost or never achieved), or Quetelet's body-mass index is 17.5 or less. Prepubertal patients may show failure to make the expected weight gain during the period of growth. |
| B. The weight loss is self-induced by avoidance of "fattening foods" and one or more of the following: self-induced vomiting; self-induced purging; excessive exercise; use of appetite suppressants and/or diuretics. |
| C. There is body-image distortion in the form of a specific psychopathology whereby a dread of fatness persists as an intrusive, overvalued idea and the patient imposes a low weight threshold on himself or herself. |
| D. A widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis is manifest in women as amenorrhoea and in men as a loss of sexual interest and potency. (An apparent exception is the persistence of vaginal bleeds in anorexic women who are receiving replacement hormonal therapy, most commonly taken as a contraceptive pill.) There may also be elevated levels of growth hormone, raised levels of cortisol, changes in the peripheral metabolism of the thyroid hormone, and abnormalities of insulin secretion. |
| E. If onset is prepubertal, the sequence of pubertal events is delayed or even arrested (growth ceases; in girls the breasts do not develop and there is a primary amenorrhoea; in boys the genitals remain juvenile). With recovery, puberty is often completed normally, but the menarche is late. |

The current diagnostic criteria for AN according to ICD-10 are displayed in Table 1.2. There are five clinical features required for a diagnosis of AN to be made. These include body weight at least 15% below that expected that is caused by avoidance of fattening foods and some form of purging, body image distortion, amenorrhoea, and if onset is prepubertal, puberty is delayed.

1.2.2.2. Diagnostic criteria for bulimia nervosa

The current diagnostic criteria for BN according to DSM-IV are displayed in Table 1.3. The clinical features required for a diagnosis of BN to be made firstly include recurrent episodes of binge eating. These are characterised by DSM-IV as rapid consumption of a larger amount of food that most people would eat in a similar discrete period of time, accompanied by a sense of loss of control over the eating behaviour in that they cannot control the amount that they eat or what type of food. Secondly, the individual regularly engages in any one or more of a variety of purging techniques, for example self induced vomiting, the use of laxatives or excessive exercise, in order to prevent weight gain. In order for a diagnosis to be made, the individual must engage in such behaviours twice a week for a minimum of two months, and such episodes cannot occur during episodes of AN. As in diagnosis of AN, the individual self evaluation is

unduly influenced by shape and weight. The DSM-IV does not specify a weight criterion for a diagnosis of BN, which is reflected in the inability to quickly identify BN sufferers by their appearance, as they may be of normal weight or somewhat overweight.

Table 1.3. Current diagnostic criteria for BN according to DSM-IV (APA, 1994)

| |
|---|
| A. Recurrent episodes of binge eating. An episode of binge eating is characterised by both of the following:<br><br>1) eating, in a discrete period of time (e.g. within any two-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.<br><br>2) a sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating). |
| B. Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self induce vomiting; misuse laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise. |
| C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least twice a week for three months. |
| D. Self-evaluation is unduly influenced by body shape and weight. |
| E. The disturbance does not occur exclusively during episodes of anorexia nervosa. |

In addition to the above criteria, there are also two subtypes of BN. If an individual regularly engages in purging behaviours such as self induced vomiting or the use of laxatives, they are referred to as having BN purging type. If these behaviours are not present the individual is referred to as having BN non-purging type, although they may still engage in compensatory behaviours such as dieting or exercise (APA, 1994).

The current diagnostic criteria for BN according to ICD-10 are displayed in Table 1.4. The clinical features required for a diagnosis of BN to be made firstly include persistent preoccupation with food, episodes of overeating, purging, and morbid dread of fatness.

Table 1.4. Current diagnostic criteria for BN according to ICD-10 (WHO, 1992)

| |
|---|
| A. There is a persistent preoccupation with eating, and an irresistible craving for food; the patient succumbs to episodes of overeating in which large amounts of food are consumed in short periods of time.<br><br>B. The patient attempts to counteract the "fattening" effects of food by one or more of the following: self-induced vomiting; purgative abuse, alternating periods of starvation; use of drugs such as appetite suppressants, thyroid preparations or diuretics. When bulimia occurs in diabetic patients they may choose to neglect their insulin treatment.<br><br>C. The psychopathology consists of a morbid dread of fatness and the patient sets herself or himself a sharply defined weight threshold, well below the premorbid weight that constitutes the optimum or healthy weight in the opinion of the physician. There is often, but not always, a history of an earlier episode of anorexia nervosa, the interval between the two disorders ranging from a few months to several years. This earlier episode may have been fully expressed, or may have assumed a minor cryptic form with a moderate loss of weight and/or a transient phase of amenorrhoea. |

1.2.2.3. Criteria for eating disorders not otherwise specified (EDNOS)

Under the DSM-IV (APA, 1994), a diagnosis of EDNOS is given when an individual does not meet the criteria for AN or BN. According to several researchers, it is helpful to distinguish between two EDNOS categories, although there is no distinct boundary between them (Fairburn & Bohn, 2005; Fairburn & Walsh, 2002; Mitchell, Pyle, Hatsukami & Eckert, 1986). The first category consists of cases that meet most of the criteria for a diagnosis of an eating disorder except for one important feature. For example, a person might meet all the criteria for AN but not suffer from amenorrhea, or they remain just inside the normal weight range for their age and height. In the case of BN, the individual may meet all the criteria except they have not yet engaged in bingeing and purging behaviours for a duration of two months. These cases may be viewed as ‘subthreshold’ instances of AN or BN respectively. The second category includes cases in which symptoms of AN and BN are combined in a way that is different to that seen in the two distinct disorders, and these cases are referred to as ‘mixed’ (Fairburn & Bohn, 2005.) In the ICD-10 (WHO, 1992), 'atypical' AN refers to individuals who show some, but not all, of the characteristics of AN, and ‘atypical’ BN refers to those who show some, but not all of the characteristics of BN.

In the last edition of the DSM (American Psychological Association, 1994) a diagnosis of binge eating disorder (BED) was introduced under the heading of EDNOS. These individuals engage in bingeing behaviour in a similar fashion to those with BN, but they do not attempt to compensate for these behaviours by using the extreme methods of weight control seen in BN and AN (American Psychiatric Association, 1994). There are divergent views on the BED

diagnosis (Stunkard & Allison, 2003; Wilfley, Wilson, & Agras, 2003) and at present it is not an established DSM-IV diagnosis and therefore remains under the heading of EDNOS.

#### 1.2.2.4. Limitations of diagnostic criteria for eating disorders

There has been much debate surrounding the utility of current and past eating disorder diagnosis both within the DSM and ICD. One major limitation of the criteria is that the majority of eating disordered cases fall into the category of EDNOS (or 'atypical' according to ICD-10) (Button, Benson, Nollett, & Palmer, 2005; Fairburn et al., 2007; Hay et al 2008; Martin, Williamson, & Thaw 2000; Ricca et al., 2001; Turner & Bryant-Waugh, 2004). In an Australian Community Survey Fairburn and Bohn (2005) looked at the prevalence of eating disorder diagnoses across four study samples and found that the weighted average prevalence of EDNOS was 60%. If the most common category of eating disorder is the one which was aimed to be residual, clearly there is something inappropriate about the classification scheme.

Despite the common use of the EDNOS category it is rarely researched (Pincus, Davis & McQueen, 1999; Fairburn & Bohn, 2005) and there have been no studies of its treatment. The marginal status of EDNOS results in restrictions on treatment provision for individuals who fall in this category (Herzog et al., 1993) which is nonsensical as most cases lie here. Also, it is not necessarily the case that individuals with EDNOS experience a milder form of illness. Fairburn et al., (2007) indicate that these cases closely resemble AN and BN in their nature, duration and severity. Thomas, Vartanian & Brownell (2009) conducted a review of 125 studies and concluded that EDNOS individuals who met all diagnostic criteria for AN except for amenorrhea did not differ significantly from full syndrome cases, and the same was true for EDNOS individuals who met all criteria for BN except for binge frequency.

Similarly, critics of the categorical nature of eating disorder diagnoses argue that the boundary between nonclinical and clinical levels of symptoms is unclear, as there are many individuals who suffer significantly from an eating disorder but do not meet diagnostic criteria (Jacobi, Hayward, de Zwaan, Kraemer & Agras, 2004; Touchette et al., 2010). Despite being unlikely to receive treatment, these individuals represent a large proportion of sufferers (Touchette et al., 2011), and it has been shown that psychosocial impairment is linearly associated with eating disorder symptoms (Wade, Bergin, Martin, Gillespie & Fairburn, 2006). Therefore, the differences between clinical and subclinical eating disorder features are likely to be marginal (Stice, Ziemba, Margolis, & Flick, 1996).

In addition, criteria are also limited in that there are key features that cross diagnostic categories. For example, both those with BN and AN, regardless of how they look, often evaluate themselves largely on the basis of their shape and weight (Blechert, Ansorge, Beckmann & Tuschen-Caffier, 2011). There is a large overlap of eating disordered symptoms in individuals within different diagnostic categories. For example, binge eating is a symptom of both BN and AN (binge/purge type) and binge eating disorder. In contrast, those that lie within the same diagnostic category can vary substantially in the type and severity of their symptoms (Waller, 1993). Thus, it appears that there is both overlap between diagnoses and discrepancy within diagnoses. In summary, eating disorder diagnostic schemes are problematic and a considerable amount of research remains to be done to account for these limitations.

These concerns regarding a diagnostic centred model of eating disorders have important implications for future research into eating psychopathology. Specifically, researchers should study symptoms across diagnostic groups in order to better understand their aetiology. For example, restriction can occur in AN, BN and subclinical disorders, and therefore an understanding of restrictive behaviour is necessary for all types of eating problems. The use of the terms ‘bulimia’ and ‘anorexia’ implies that they are distinct ‘disorders’. Although such constructions are problematic for the above mentioned reasons, the terms are used in this thesis because of an absence of alternative language that lacks these connotations. Consultation with eating disorder psychiatrists has revealed that many suggested that in future diagnostic criteria EDs should be classified based on weight, for example underweight EDs, normal weight EDs and overweight EDs (Nicholls & Arcelus, 2010).

#### 1.2.2.5. Proposed changes to eating disorder diagnoses (DSM-5)

The diagnostic criteria for eating disorders are currently under revision in the preparation of the next edition of the DSM. This fifth edition is due for publication in May 2013 and will supersede the DSM-IV. This section describes the changes proposed.

##### DSM-5 proposed diagnostic criteria for anorexia nervosa

The proposed changes to the diagnostic criteria for AN can be seen in Table 1.5. The word ‘refusal’ is to be removed from criterion A as this was considered to imply that the individual intends to restrict their food intake when this may not be the case (Becker, Eddy & Perloe, 2009). The new criterion A will focus on the behaviours instead. In addition, the DSM-5 Work Group believes that setting specific standards for weight is not appropriate as it does not take into account the individuals build or history. Therefore they recommend that the previous 85% of expected body weight be removed and replaced with ‘significantly low weight’. It has been

suggested that Criterion B should state that individuals may fear weight gain or they may have behaviours that interfere with weight gain, thus acknowledging that not every individual with AN fears weight gain (Becker et al., 2009). Criterion D from DSM-IV (amenorrhea) will be removed as some women have been found to menstruate despite exhibiting all other signs of AN, and because it doesn't apply to pre-menarchal females, those taking oral contraceptives, or to men (Attia & Roberto, 2009). Finally, DSM-IV requires that sub-type (binge eating/purging or restricting) be specified for the current episode. While data suggests that such sub-typing is clinically useful, there is often difficulty in specifying the subtype for the 'current episode' of AN, due to the significant cross-over between sub-types (Peat, Mitchell, Hoek & Wonderlich). Therefore, it will be recommended that the sub-typing be specified for the previous 3 months.

Table 1.5. DSM-5 proposed diagnostic criteria for anorexia nervosa

| |
|---|
| A. Restriction of energy intake relative to requirements leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. Significantly low weight is defined as a weight that is less than minimally normal, or, for children and adolescents, less than that minimally expected. |
| B. Intense fear of gaining weight or becoming fat, or persistent behavior that interferes with weight gain, even though at a significantly low weight. |
| C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight. |

DSM-5 proposed diagnostic criteria for bulimia nervosa

The proposed changes to the criteria for BN can be seen in Table 1.6. The only proposed change to the criteria for bulimia nervosa is the frequency of binge eating and inappropriate compensatory behaviours. DSM-IV requires that both occur twice on average over the last three months. However a literature review revealed that those who were only engaging in such behaviours once a week had similar clinical characteristics (Wilson & Sysko, 2009) and therefore DSM-5 has lowered the frequency. In criterion B, the phrase "persistent behavior to avoid weight gain" will be changed to "persistent behavior that interferes with weight gain". It was considered that the use of the word 'avoid' suggests that an understanding of the individual's motiviation for the behaviour was required. In addition, DSM-IV requires that sub-type (purging or non-purging) is specified. Data has suggested that the non-purging subtype has not been utilised frequently and that these individuals may resemble those with binge eating disorder more closely (van Hoeken, Veling, Sinke, Mitchell & Hoek, 2009).

Table 1.6. DSM-5 proposed diagnostic criteria for bulimia nervosa

| |
|---|
| A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:<br><br>(1) Eating, in a discrete period of time (for example, within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.<br><br>(2) A sense of lack of control over eating during the episode (for example, a feeling that one cannot stop eating or control what or how much one is eating).<br><br>B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, or other medications, fasting; or excessive exercise.<br><br>C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for 3 months.<br><br>D. Self-evaluation is unduly influenced by body shape and weight.<br><br>E. The disturbance does not occur exclusively during episodes of anorexia nervosa. |

Finally, it has been recommended by The Work Group for DSM-5 that the category 'Eating Disorder Not Otherwise Specified' be replaced by 'Feeding and Eating Conditions Not Elsewhere Classified'. There will also be brief descriptions of conditions of clinical significance so that those individuals who have feeding or eating problems which do not fit existing criteria for can be more appropriately described and categorised.

### 1.2.3. Prevalence of eating disorders

This section describes the existing evidence regarding the prevalence of eating disorders, focusing on the difference in prevalence between males and females, those of different ages, ethnicities and differences in prevalence across recent decades. The methodological difficulties in conducting prevalence studies are also discussed.

The prevalence of eating disorders has mainly been investigated in samples of young women in Europe and North America. The lifetime prevalence of AN has been found to be between 0.5% and 0.6% in adult women in the US (Hudson, Hiripi, Pope & Kessler, 2007; Walters & Kendler, 1995) and Canada (Garfinkel et al., 1996). The lifetime prevalence of BN in adult women is estimated as between 1% to 2.8% in the US (Kendler et al., 1991) Canada (Garfinkel et al., 1995) and in New Zealand (Bushnell et al., 1990).

Eating disorder rates are higher in females than in males (e.g. Bushnell et al., 1990; Garfinkel et al 1996). It has been found that 0.1 % of young males meet criteria for AN and

0.1% meet criteria for BN (Garfinkel et al., 1996; Carlat & Camargo, 1991), while males represent 10-15% of all patients with BN (Carlat, Camargo & Herzog, 1997). EDNOS however has a higher prevalence in men than both AN and BN combined (Taraidsen, Eriksen, & Gotestam, 1996). Significant differences have been found between male and female eating disorder patients, with men experiencing less pressure to engage in compensatory behaviours, less loss of control, and being more likely to use compulsive exercise than purging (Smolak & Striegel-Moore).

In terms of age, it's also well documented that rates of eating disorders are higher in teenagers (American Psychiatric Association, 2004). According to DSM-IV, the average age at which AN manifests itself is 17 years, with many cases falling between the ages of 14 and 18. Information on the average age for BN is sparse, although there has been a consensus that BN normally begins in the later adolescent years. The most common explanation for this is the large amount of stressors that arise, particularly for young women, during the teenage years (Fryer, Waller , & Kroese, 1998).

In regards to ethnicity, studies have consistently found that eating disorders are more prevalent in white women than black women. Striegel-Moore et al., (2003) used telephone screening and face to face interviews with 985 white women and 1,061 black women. They found a 1.5% prevalence rate for AN in white women versus a 0% rate in black women. Similarly, there was a 2.3% versus 0.4% rate for BN. Binge eating disorder was also more common among white women (2.7%) than black women (1.4%). Similarly, a recent study on referrals to an eating disorder service from South Asian populations found that only 4.5% of female patients were Asian, as opposed to 13.8% of the local young female population in the most recent UK census (Abbas et al., 2010).

In terms of time, the majority of studies have focused on AN, and meta-analyses have concluded that there has been a small global increase throughout the twentieth century (Keel & Klump, 2003). Few studies have focused on bulimia due to its later recognition as a diagnostic category. However one study found a threefold increase in the primary care incidence of bulimia between 1988 and 1993 in the UK (Turnbull, Ward, Treasure, Hick & Derby, 1996). Keel and Klump (2003) asserted that bulimia nervosa was a rare condition in women born in the first half of the 20$^{th}$ century but it grew to be a significant public health concern for women born in the second half of the 20$^{th}$ century. This increase in AN and BN has been explained by the modern idealisation of thinness (Currin, Schmidt & Treasure, 2005). However it remains unclear whether

this increase in eating disorders detected by general practitioners is due to a true increase or the increase in general practitioner's knowledge of eating disorders.

Recent research has reported a decline in bulimia incidence following the dramatic increase during the 20th century in the UK (Currin, Schmidt & Treasure, 2005) and in Europe (Hoek & van Hoeken, 2003). However as both studies used primary-care databases to identify cases, trends could reflect shifts in treatment seeking and changing symptom recognition among clinicians. Using a sample of the general population, Keel et al. (2006) examined changes in bulimia point prevalence from 1982 to 2002 and found that bulimia decreased by threefold during this period. Although this conclusion seems to contradict popular opinion, results support findings from other studies which suggest a decrease in prevalence (Hoek et al., 2000; Westenhoefer, 2001).

Prevalence studies of eating disorders are fraught with methodological difficulties in terms of definition, measurement techniques and sampling according to van Hoeken et al., (2003). Such studies use inconsistent definitions and diagnostic criteria, which can be evidenced by the large differences in reported prevalence rates between studies. This wide variation could also be an artefact of the wide range of assessment techniques used by epidemiological studies. Additionally, samples are often biased and consist largely of college students. According to Hoek and van Hoeken (2003), prevalence studies are very time consuming and involve recruiting a vast number of participants due to the low levels of eating disorders in the general population. Many studies employ a two stage method where the general population is screened for eating disorders and then individuals are interviewed to identify whether they meet criteria. Alternatively numbers may be determined from eating disorder services, however using such data assumes that all those who meet diagnostic criteria successfully seek treatment, which is known not to be the case (e.g. Hoek & van Hoeken, 2003).

### 1.2.4. Course and outcome of eating disorders

Eating disorders are chronic illnesses and there is much variation in their course and outcome. Berkman, Lohr & Bulik (2007) conducted a systematic review of studies investigating eating disorder outcomes. They examined prospective cohort studies which found that half of those with AN were considered recovered after five years, with 59% of these individuals no longer meeting diagnostic criteria and 41% having 'good' outcome according to M-R General scale criteria (Gillberg, Råstam & 1994a; Gillberg, Råstam & Gillberg, 1994b; Råstam et al, 1995). However, 6% still met criteria for AN, 22% criteria for BN, and 14% EDNOS. According to further studies, the percentage with an eating disorder was still around 27% (Nilsson et al., 1999; Råstam, Gillberg & Wentz, 2003; Wentz Gillberg, Gillberg, & Råstam, 2001). In bulimia,

one study found that by 12-year follow up 67% of the group were recovered and did not meet diagnostic criteria (Fichter & Quadflieg, 2004). However, at two year follow up, total EDI scores were worse than at discharge (Fichter & Quadflieg, 1997). The presence of comorbid psychiatric disorders at follow-up is also found to be common (Steinhausen, 2002).

There are several predictors of poor outcome, including an initial diagnosis of AN, vomiting, purging, chronicity of illness, and obsessive-compulsive personality symptoms (Herzog et al., 1999; Nilsson et al., 1999; Steinhausen, 2002). However there are large variations in the outcome parameters employed across studies and so it proves difficult to draw conclusive results. In terms of mortality, reported rates are worse in AN compared to other diagnoses. According to a recent meta-analysis, the weighted mortality rate (deaths per 1000 person-years) for BN was 1.7 while the mortality rate for AN was 5.1 (Arcelus, Mitchell, Wales & Nielsen, 2011)

### 1.2.5. Risk factors

It is evident from the way in which the diagnostic criteria for eating disorders have changed over recent years that our understanding of them is far from complete. It is unsurprising then, that there is still debate regarding the causes of these illnesses. Given the complex nature of eating disorders, many risk factors have been proposed, which both bring about the eating disorder in the first place and lead to its maintenance (Palmer, 2000). Risk factors are both biological, for example genetics and early development trauma, and environmental, such as family environment and peer influences (Collier & Treasure, 2004; Connan, Campbell, Katzman, Lightman & Treasure, 2003; Fairburn et al., 1999b). Reviews of risk factors have found both shared and distinctive variables for AN and BN (Jacobi et al., 2004; Stice, 2002; Striegel-Moore & Bulik, 2007).

According to Striegel-Moore & Bulik (2007), gender is the most powerful risk factor for developing an eating disorder. Genetic studies have suggested that eating disorders have high hereditability, ranging from 48% to 76% in AN and 50% to 83% in BN (Bulik et al, 2007). Recent studies suggest that genes that may exacerbate the risk of developing an eating disorder include those concerning dopamine and serotoninergic systems (Bulik et al, 2007, Striegel-Moore & Bulik, 2007). A meta-analysis has revealed that perfectionism, body dissatisfaction, impulsivity, negative affect, substance misuse and perceived pressure to be thin are key risk factors for an eating disorder (Stice, 2002). Factors that were linked specifically with bulimic psychopathology included the modelling of eating disturbances and body image in close family

and friends. Importantly, this meta-analysis highlighted the significance of social support as a protective factor in the development of an eating disorder.

Jacobi, Hayward, de Zwaan, Kraemer, and Agras (2004) conducted a review of existing cross-sectional and longitudinal studies on risk factors for eating disorders. The main risk factors were weight and shape concerns, body dissatisfaction and dieting. Common risk factors were being female, genetic factors, early problems with feeding, negative childhood experiences such as sexual or physical abuse, adolescence, low self esteem, and psychiatric morbidity. For bulimia nervosa, specific risk variables were complications with pregnancy, childhood obesity, low self-esteem, parental problems such as alcohol misuse, and other family environmental factors (e.g. high criticism). For AN, specific risk factors were pregnancy and birth complications, high perfectionism and low self-esteem.

In addition, social factors have been considered as risk factors in the development of an eating disorder. Factors such as family dysfunction, an individual's high need for social approval, participation in a social network in which thinness is valued, low social support and the experience of social phobia have all been found to be risk factors for eating disorders and binge eating episodes (e.g. Stice, Presnell & Spangler, 2002; Streigel-Moore, Silberstein & Rodin, 1986). According to current NICE guidelines (2004), eating disordered individuals often have difficulty engaging in intimate relationships and such social difficulties can also result in continued dependence on family into adult life. Interpersonal factors, which are the focus of the present thesis, therefore appear to be relevant risk and maintenance factors in the eating disorders.

The importance of eating disordered individuals interpersonal lives has recently been acknowledged by the 'transdiagnostic' theory and treatment of eating disorders, which is based on the assumption that all eating disorders share common maintaining mechanisms (Fairburn, Cooper & Shafran, 2003). The authors of the model argue that the original cognitive behavioural model (Fairburn, 1981) 'existed in something of a vacuum in that it paid little attention to patients' circumstances' (p. 518). While the original theory did acknowledge that binge eating was commonly caused by interpersonal triggers, the theory did not mention the interpersonal context of eating disorders.

In their transdiagnostic model, Fairburn et al., (2003) argued that there was a need to include interpersonal factors in the conceptualisation of the eating disorders. They use several sources of evidence to back up this claim. Firstly, they point out that interpersonal psychotherapy, on

which this thesis is based, is considered to be as effective as cognitive behavioural therapy at follow up (Agras, Walsh, Fairburn, Wilson & Kraemer, 2000; Fairburn, Jones, Peveler, Hope & O'Connor, 1993). Secondly, young eating disordered patients' families are often involved in intensifying the individual's resistance to eating. Fairburn et al. (2003) argue that this represents a power struggle, where food becomes something the patient can control. Thirdly, certain interpersonal environments can heighten eating, shape and weight concerns, for example occupations where there is pressure for an individual to be slim. Fourthly binge eating is often triggered by interpersonal events, and previous research has found evidence suggesting that bulimic patients are particularly sensitive to social interactions (Stieger, Gauvin, Jabalpurwala, Seguin & Stotland, 1999). In addition, self-esteem is damaged by interpersonal difficulties, and low self esteem is linked to patients increased determination to achieve their eating, shape and weight based goals. Finally, there is evidence that maladaptive interpersonal functioning is associated with poor treatment outcome (Agras et al., 2000a; Steiger, Leung, & Thibaudeau, 1993).

Figure 1.1. shows the diagrammatical representation of the transdiagnostic model, which takes into account interpersonal life (shortened to 'life').

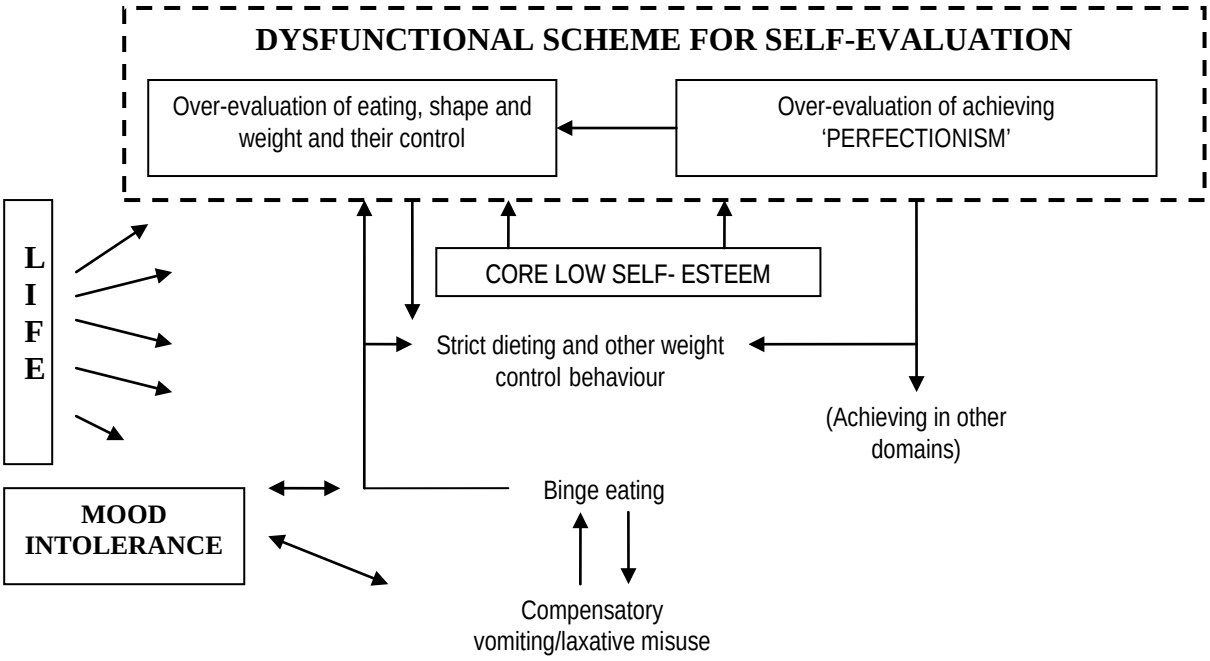


Figure 1.1. A schematic representation of the extended cognitive behavioural theory of the maintenance of bulimia nervosa.

### 1.2.6. Conclusions

Eating disorders are complex, chronic illnesses which affect mainly young women and cause a high level of suffering in many individuals. Diagnostic criteria exist for eating disorders, however these are limited. It is clear from the above that it is important for research to take into account the common features of different types of eating disorders. For example when studying binge eating, it is important to include individuals who engage in bingeing behaviours, and not just those who fit the criteria for bulimia nervosa. At present it remains unclear what causes eating disorders, but many biological and environmental risk and maintenance factors have been proposed, including interpersonal factors according to the transdiagnostic model (Fairburn et al., 2003). In the following section the concept of interpersonal functioning in eating disorders is addressed.

## 1.3. Interpersonal functioning

### 1.3.1. Introduction

This section aims to explore the current lack of definition of 'interpersonal functioning', the relevance of interpersonal functioning to general psychopathology and eating disorders, and the treatment of eating disorders (Fairburn, Cooper & Shafran, 2003).

### 1.3.2. Interpersonal functioning: a definition or lack of

Interpersonal functioning is a well studied and yet poorly defined construct. In fact, thorough literature searches do not reveal any existing definitions and research uses the term without further explanation. This results in a wide variety of interpretations of the term and differences in methods between studies. According to Sullivan (1953) the term 'interpersonal' encompasses not only the patterns of interaction between the individual and significant others, but also the process by which these interactions are internalised and form part of the self image. For example, an individual may have negative experiences of socialising with others, which may cause them social anxiety and result in a perception of themselves as a socially anxious person.

The interpersonal domain crosses several contexts, for example close relationships and more peripheral relationships, relationships with family, friends, partners, and colleagues. These relationships can also be studied in a variety of domains, for example attachment, intimacy or closeness, passion, sexuality and conflict (Simpson & Tran, 2006). Studies can explore interpersonal functioning in general, for example as a lack of assertiveness (e.g. Troop, Allan, Treasure, & Katzman, 2003), or they can study interpersonal functioning in the context of certain relationships, for example romantic relationships (e.g. Evans & Wertheim, 1998). It is

clear that the way in which an individual functions interpersonally can be studied from a variety of perspectives as there is no clear definition of interpersonal functioning.

### 1.3.3. Interpersonal problems and general psychopathology

Despite the lack of a definition, healthy interpersonal functioning is considered crucial to good mental health. According to Klinger (1977), when people are asked what makes their lives meaningful, most will mention their close relationships with others. Being involved in secure and fulfilling relationships is perceived by most individuals as critical to well being and happiness (Berscheid & Peplau, 1983). From an evolutionary perspective, the need to maintain closeness to others plays an important role in the survival of the species (Bowlby, 1969; Greenberg & Safran, 1987; Safran & Greenberg, 1987, 1988).

Maladaptive interpersonal functioning is considered central to several disorders, such as depression (e.g. Petty, Sachs-Ericsson & Joiner, 2004) anxiety (e.g. Montgomery, Haemmerlie & Edwards, 1991), schizophrenia (e.g. Sullivan & Allen, 1999) and autistic spectrum disorders (e.g. Travis & Sigman, 1998). However at present it remains unclear whether interpersonal difficulties are temporary symptoms of psychological disorders, or whether they are vulnerability or risk factors for the development of such disorders. Interpersonal skill deficits may therefore cause a vulnerability towards such disorders and may also play a role in maintaining them.

When examining the literature regarding social interactions, it is evident that there is interpersonal similarity between depression and social anxiety. Both states are characterised by inhibited social behaviours, such as non-assertiveness and social avoidance (e.g., Gotlib & Meltzer, 1987; Libet & Lewinsohn, 1973; Jones & Carpenter, 1986; Trower, 1980; Stravynski & Shahar, 1983; Alden & Phillips, 1990). Both groups' cognitions are characterised by social inhibition and inadequacy, and self-defeating attributional patterns (e.g., Gotlib & Meltzer, 1987; Youngren & Lewinsohn, 1980; Ahrens, Zeiss, & Kanfer, 1988; Heimberg *et al.,* 1989). Considering that maladaptive interpersonal functioning is central to several disorders, it is not surprising that evidence suggests this is also the case in eating disorders.

### 1.3.4. Alexithymia

One concept that is linked to interpersonal functioning is alexithymia. This is a term that was coined by Peter Sifneos (1973) to describe a deficiency in labelling or processing emotions. Haviland, Warren and Riggs (2000) state that people who are alexithymic also have difficulty distinguishing between feelings and bodily sensations of emotional arousal, and struggle to describe feelings to other people. Studies have found that alexithymia is related to certain

aspects of interpersonal functioning, such as an individual being cold and detached in relationships, and they tend to conform socially and avoid conflict (Guttman & Laporte, 2002; Vanheule, Desmet, Rosseel et al, 2006). Several studies have found a high prevalence of alexithymia in patients with eating disorders (DeGroot et al., 1995; Ridout, Thom & Wallis, 2010; Taylor et al., 1996). This thesis however, does not focus on alexithymia, as it is considered beyond the scope of this thesis to study emotional recognition and regulation. It is recognised however, that individuals need to be able to label and process their own emotions in order have healthy interpersonal functioning.

### 1.3.5. Social problem solving

According to D'Zurilla and Goldfried (1971), global problem solving is a cognitive and behavioural process in which the individual selects the most effective response alternative for a specific problem. It is considered to be a conscious and rational activity aimed at generating the most beneficial outcome to the potentially challenging situation. Specifically, this cognitive-behavioural activity makes a variety of potentially effective solutions available, and it increases the likelihood of selecting the most effective strategy from the various alternatives. The five steps of problem solving are: general problem orientation, defining and formulating the problem, generating response alternatives, deciding on the most effective response and finally implementing the chosen response (D'Zurilla & Goldfried, 1971).

D'Zurilla and Nezu (1982) later went on to define social problem solving. They describe it as the process of problem solving 'as it occurs in the natural environment or real world' (D'Zurilla & Nezu, 1982). They state that their definition applies to any problem that might impact a person's functioning. These include impersonal (e.g. finances), intrapersonal problems (e.g. emotional) interpersonal problems (e.g. conflicts) and societal problems (e.g. crime). This thesis is primarily concerned with social problems which are *interpersonal*.

### 1.3.5. Conclusions

Interpersonal functioning is a well studied and yet poorly defined construct. Despite the lack of a definition, adaptive interpersonal functioning is considered crucial to good mental health, and maladaptive interpersonal functioning has been associated with several psychological disorders. It has been suggested by the transdiagnostic model of the eating disorders that it is important to consider the interpersonal context of the eating disorders.

## 1.4. Interpersonal functioning and eating disorder related attitudes and behaviour: A systematic review and preliminary model

### 1.4.1. Introduction to the section

This section reviews the available evidence from studies which investigate interpersonal functioning in the eating disorders. The purpose of this review is to systematically appraise the literature that might support or refute the hypothesis that people with eating disorders are prone to maladaptive interpersonal functioning. There is a wealth of existing research that explores associations between eating disorder related attitudes and behaviours and interpersonal functioning, however at present this research remains disparate, and there is an absence of a framework within which to understand how these concepts relate to each other. A framework which can be used to explain these concepts specifically in relation to eating related attitudes and behaviours is required in order to further understand these problems as different to those experienced in other psychiatric disorders such as depression.

### 1.4.2. Introduction

There is a wealth of existing research that explores associations between eating disorder psychopathology and interpersonal functioning. Previous research in this area has included many studies of interpersonal functioning, interpersonal problems, social problem solving, social maladjustment, fear of negative evaluation, interpersonal comparison, attitude towards emotional expression, fear of intimacy and attachment (e.g. Gilbert & Meyer, 2005a, 2005b; Hartmann, Zeeck & Barrett, 2010; Herzog et al., 1986; Meyer, Leung, Barry & DeFeo, 2010).

While there are no definitions of interpersonal functioning or social maladjustment in the existing literature, the author of this research considers maladaptive interpersonal functioning to be patterns of internal psychological processes which in turn have a negative effect on interpersonal interactions and relationships. According to Sullivan (1953) the term ‘interpersonal’ encompasses not only the patterns of interaction between the individual and significant others, but also the process by which these interactions are internalised and form part of the self image. Social maladjustment is a term that has been used in this research to describe the social consequences of such maladaptive traits, such as having low levels of social support and a small social network.

Further highlighting the role of interpersonal problems in eating disorders, treatment approaches that focus on maladaptive interactional patterns have proven to be effective in reducing symptoms of bulimia nervosa (BN) (Fairburn, 1997; Fairburn, Jones, Peveler, Hope, &

O'Connor, 1993; Fairburn et al.,1991; Roth & Ross, 1988; Wilfley et al., 1993; Wilfley et al., 2002) and theoretically, for anorexia nervosa (AN) (McIntosh, Bulik, Mckenzie, Luty, & Jordan, 2000), although this has not yet been backed up by empirical evidence. Interpersonal psychotherapy (IPT; Klerman, Weissman & Rounsaville, 1984) is a therapy which aims to treat psychological disorders through examining the individual's interpersonal world. The rationale of IPT for BN suggests that those who experience eating disorder symptoms, attitudes and behaviours do so in response to interpersonal disturbances, for example deficits in ability to solve social problems. In improving the individual's ability to utilise their social support networks and manage these interpersonal deficits, IPT aims to reduce eating disorder symptoms (Fairburn, 1993; 1997).

Despite there being many previous studies which have investigated the interpersonal functioning of individuals with eating disorders, at present this research remains disparate. At present there are no reviews which draw this research together and assess its contribution to the conceptualisation of interpersonal functioning in the eating disorders. In addition, a framework which can be used to explain these concepts specifically in relation to eating related attitudes and behaviours is required in order to further understand these problems as different to those experienced in other psychiatric disorders such as depression.

### 1.4.3. Aims of this review

This review aims firstly to summarise and systematically evaluate the empirical literature to date that investigates interpersonal functioning in eating disorders. The studies are described and evaluated methodologically and a preliminary model within which to conceptualise these associations is presented. The aim of this is to help draw conclusions that are relevant to both clinical practice and future research in the field.

### 1.4.4. Method

#### 1.4.4.1. Search applications

A search was performed for references to papers on interpersonal functioning and eating disordered attitudes and behaviour, using the PsychARTICLES (1894-present), PsychINFO (1894-present), Medline (1949-present) and the Web of Science (1900-present). Search terms that included the term interpersonal included: interpersonal functioning, interpersonal problems and interpersonal deficits. Those search terms that the authors concluded as relating to interpersonal functioning from previous research in the field included: interpersonal functioning, interpersonal problems, social maladjustment, fear of negative evaluation, interpersonal comparison, attitude towards emotional expression and fear of intimacy. These terms were

used alongside ‘eating disorder’, ‘anorexia nervosa’, ‘bulimia nervosa’ and ‘eating disorder not otherwise specified’. After the initial identification of relevant published articles all citations were then obtained. Only papers published in English language were considered. Although attachment was considered to be relevant to interpersonal functioning, there is a wealth of existing research on attachment styles in ED which is beyond the scope of this review. See Ward, Ramsay & Treasure (2000) for a comprehensive review.

#### 1.4.4.2. Selection

The above initial search produced 44 articles which were then examined for appropriate inclusion. Five of these papers were not included because they were not accessible or not available in English.

The criteria for inclusion in the review included:

- Original empirical data relating to interpersonal functioning.
- More than 15 participants, female or male.
- Participants were either: suffering from AN, BN, or EDNOS; were experiencing high levels of eating disorder attitudes and behaviours but had not been diagnosed; or healthy controls.
- The study used psychological measures which related to the terms used in the search strategy.

### 1.4.5. Results

#### 1.4.5.1. Study characteristics

The characteristics of the participants from the 35 studies varied. Of those studies who recruited eating disordered participants, 9 studies included a mixed ED sample, 3 included used a sample with AN, and 14 used a sample with BN. These studies included 18 that recruited eating disordered individuals from eating disorder services. Twenty-five studies included control or comparison groups and 8 studies used a purely nonclinical sample. Out of those studies which used a control group or a purely nonclinical sample, 16 studies recruited participants from university populations, 3 from community samples, and 1 study used both. From these nonclinical samples, those who reported high eating psychopathology were studied as a sub-sample. All studies were cross-sectional in design, with 34 studies employing questionnaires and 1 study involving observations.

The sample sizes of the studies varied with 14 having total samples of over 100 participants, 11 having 50-100 participants and 8 with less than 50 participants. Out of the 21 studies with more than one participant group, no studies had a sample size of over 100 participants per group, 4 studies had 50 – 100 participants per group and 18 studies had less than 50 participants per group. Four studies had a disproportionate number of participants per group (38 patients with AN vs. 51 patients with BN vs. 12 with EDNOS; 92 ED patients vs. 144 controls, 12 patients with AN vs. 21 with BN; 44 AN patients, vs. 81 BN patients).

All studies included in the present review were cross sectional and therefore fall into Class 2 of the classification system used by the National Institute for Health and Clinical Excellence guidance (NICE, 2007) to evaluate studies. (Class 1 = randomised controlled trials; Class 2 = case control or cohort studies or Class 3 = non-analytic studies such as case studies, case series or single case designs). While there are NICE checklists for cohort studies, case control studies and qualitative studies, there is currently no checklist to evaluate the methodology for cross-sectional studies. Gilbert (2007) developed a checklist for cross sectional studies based on these other NICE checklists (see Table 1.7). Due to there being no recommended checklist in published literature, this review therefore employed the checklist and then used the NICE rating system shown in Table 1.8 to rate studies in terms of their methodological quality from good quality (++), to reasonable quality (+) to poor quality (-). A similar system has been employed in recent research (Atlantis & Baker, 2008).

Table 1.7. Checklist for methodological quality in cross sectional studies (Gilbert, 2007)

| Study (*author, title, reference, year of publication)* | | | |
|---|---|---|---|
| SECTION 1: INTERNAL VALIDITY | | | |
| In a well conducted cross-sectional or before-after design: | | | In this study the criterion is: |
| 1.1 | The study addresses an appropriate and clearly focused question. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| SELECTION OF SUBJECTS | | | |
| 1.2 | Recruitment is appropriate to the aims of the research. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| 1.3 | Representative cases from relevant population. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| 1.4 | The study indicates how many of the people asked to take part did so. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |

| | | | |
|---|---|---|---|
| 1.5 | Comparison is made between participants and non-participants to establish their similarities or differences. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| 1.6 | Inclusion criteria made explicit and sample characteristics sufficiently described | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| 1.7 | Were subjects recruited over the same period of time? | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| DATA COLLECTION | | | |
| 1.8 | Confidence in the quality of individual responses (e.g., tel. Questionnaires might produce better quality answers than postal). | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| 1.9 | Outcome is measured in an objective, standard, valid and reliable way. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| 1.10 | Reliance on current info rather than recall/ hypothetical scenarios. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| CONFOUNDING | | | |
| 1.11 | The main potential confounders are identified and taken into account in the design and analysis. | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| 1.12 | Minimisation of bias – participant bias, observer bias, halo effects | Well covered<br>Adequately addressed<br>Poorly addressed | Not addressed<br>Not reported<br>Not applicable |
| STATISTICAL ANALYSIS | | | |
| 1.13 | Appropriate use of statistical analysis? | | Appropriate<br>Not appropriate<br>Not clear |
| 1.14 | Actual P values reported (e.g., 0.037 rather than < 0.05) for the main outcome except when p value is < 0.001 | | Yes<br>No |
| SECTION 2: OVERALL ASSESSMENT OF THE STUDY | | | |
| 2.1 | How well was the study done to minimise the risk of bias or confounding, and to meet its aims? | ++<br>+<br>- | |
| 2.2 | Taking into account clinical considerations, your evaluation of the methodology used and the statistical power of the study are you certain that the findings could be replicated | Yes<br>No | |

Table 1.8. NICE rating system for methodological quality of studies using methodological checklists (NICE, 2007)

| | |
|---|---|
| ++ | All or most of the criteria have been fulfilled. Where they have not been fulfilled the conclusions of the study or review are thought very unlikely to alter. |
| + | Some of the criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought unlikely to alter the conclusions. |
| – | Few or no criteria fulfilled. The conclusions of the study are thought likely or very likely to alter |

Employing the system described above, no studies were rated as (-) indicating that few or no methodological criteria from the checklist relating to their study design had been fulfilled. All studies either received a rating of (+), demonstrating that some of the criteria had been fulfilled (N = 7), or a rating of (++), demonstrating that most or all of the criteria had been fulfilled (N = 10).

Table 1.9. Summary of the studies included in this review

| Authors & year | Focus | Sample | Measures | Results relevant to review |
|---|---|---|---|---|
| 1. Hartmann, Zeeck, & Barrett (2010) | Interpersonal problems | 208 German patients, 6% male, 94% female receiving a primary diagnosis of AN-R, BN, or AN of the binge/purging-subtype. | Inventory of Interpersonal Problems, (IIP-C)Symptom Checklist-90 (SCL-90-R), Eating Disorder Inventory (EDI), Structured inventory for Anorexic and Bulimic syndromes (SIAB-EX) | • ED patients non-assertive, submissive, socially inhibited, overly nurturant and less domineering interpersonal style compared to nonclinical sample (Brähler et al., 1999). |
| 2. Ambwani & Hopwood (2009) | Interpersonal problems | 110 female students with bulimic features | Inventory of Interpersonal Problems Short Circumplex (IIP-SC), Eating Disorders Inventory (EDI), Beck Depression Inventory (BDI) | • BN women did not share a particular interpersonal style, exhibited wide variability in interpersonal problems. |
| 3. Hopwood, Clarke, & Perez (2007) | Interpersonal problems | 130 female students with scores in the top quartile on the Bulimia scale of the Eating Disorder Inventory- 2 | Inventory of Interpersonal Problems (IIP-64), EDI | • BN symptoms moderately correlated with generalised interpersonal problems (r =.39, p<.001).<br>• Fairly even balance within the four clusters of interpersonal circumplex (31 = warm-submissive, 49 = cold-dominant, 19 = cold-submissive and 31= warm-dominant). |
| 4. O'Mahony & Hollwey (1995) | Interpersonal problems | 31 patients with AN, 105 dancers, models, and athletes, 96 controls, all women | Eating Disorder Questionnaire (EDQ), Young Loneliness Inventory (YLI), The Neuroticism Scale | • ED symptoms sig. associated with poor interpersonal functioning in all groups.<br>• Association survived only in AN when general neuroticism was partialed out. Concludes that psychosocial difficulties do not have strong role in risk of ED. |
| 5. Mizes (1989) | Assertiveness | 23 patients with BN and 20 controls without eating disorders, all college women. | Adult Self-Expression Scale (ASES), College Womens' Assertiveness Sample (CWAS). | • BN did not report deficits in assertive behaviour.<br>• BN tend to avoid using problem-focused coping strategies in interpersonal situations.<br>• Suggested social maladjustment reflects personality characteristics that lead to risk of ED. |
| 6. Williams et al. (1993) | Assertiveness | 32 patients with AN, 30 with BN, 31 obese dieters, 29 non-obese dieters and 35 normal controls, all women | Rathus Assertiveness Schedule (RAS), Hostility and Direction of Hostility Questionnaire (HDHQ), EDI | • ED patients higher levels of perceived control, low assertiveness, low self-esteem, and self-directed hostility.<br>• ED sample did not differ from psychiatric controls, suggesting factors not specific to ED. |
| 7. Troop, Allan, Treasure, & Katzman (2003). | Assertiveness/ social comparison | 38 patients with AN, 51 patients with BN, 12 with EDNOS, and 101 student controls, all women | Submissive Behaviour Scale (SBS), Social Comparison Rating Scale (SCRS). | • ED patients higher levels of submissive behaviour and higher levels of social comparison. |
| 8. Wagner et al. (1987) | Ineffectiveness | 14 patients with AN, 4 with BN and 18 controls, all women | Eating Disorders Self Efficacy Scale, EDI | • ED patients greater sense of social ineffectiveness. |
| 9. Atlas (2004). | Sensitivity to | 84 healthy female | Sensitivity to Criticism Scale (SCS), | • AN symptoms sig. associated with higher interpersonal sensitivity. |

| | | | | |
|---|---|---|---|---|
| | criticism | undergraduates | EDI. | |
| 10. Evans & Wertheim (1998). | Fear of intimacy | 5360 healthy young women | Questions on satisfaction with intimacy, BDI, Bulimia Test Revised (BULIT-R). | • ED symptoms sig. associated with discomfort in close intimate relationships and less satisfaction with closeness. |
| 11. Pruitt, Kappius, & Gorman (1992). | Fear of intimacy | 17 women with BN and 21 healthy women | Fear of Intimacy Scale (FIS), The Bulimia test (BULIT) | • BN sig. higher level of fear of intimacy. |
| 12. Laessle, Tuschl, Waadt & Pirke (1989) | Interpersonal distrust | 20 patients with BN, 20 restrained eaters, and 20 controls, all women | EDI | • BN sig. higher levels of interpersonal distrust. |
| 13. Ruderman & Besbeas (1992) | Interpersonal sensitivity | 21 dieters, 19 bulimics, and 33 controls, all women | SCL-90-R | • BN sig. higher levels of interpersonal sensitivity. |
| 14. Striegel-Moore, Silberstein, and Rodin (1993) | Social anxiety and ED | 24 patients with BN, 33 with high scores on EAT, and 64 matched controls, all women | Self Consciousness Scale (SCS), Eating Attitudes Test (EAT), Symptom checklist 90 | • BN sig. higher levels of public self-consciousness and social anxiety |
| 15. Gilbert & Meyer, (2005b) | Fear of negative evaluation | 91 healthy female undergraduates | Two versions of the short Fear of Negative Evaluation Scale (FNE), the standard scale (in relation to people in general), and a version in relation to close friends and relatives. EDI. | • Both general and close FNE were significantly and positively correlated with restrictive (drive for thinness and body dissatisfaction), but not with bulimic attitudes.<br>• However, only general FNE had significant individual predictive power on restrictive attitudes when these two forms of FNE were entered into a regression analysis. |
| 16. Gilbert & Meyer (2005a) | Fear of negative evaluation | 143 healthy female undergraduates | Fear of Negative Evaluation Scale (FNE) | • Restraint sig. associated with heightened negative evaluation.<br>• BN attitudes predicted by negative evaluation fears and depression.<br>• Longitudinal model predicting the development of restriction was nonsignificant. |
| 17. Gilbert & Meyer (2003) | Fear of negative evaluation/social comparison | 80 healthy female undergraduates | FNE, The Iowa–Netherlands Comparison Orientation Measure (INCOM), | • Social anxiety predicted drive for thinness & while levels of social comparison predicted bulimic attitudes. The findings support a model where the two social processes are each associated with different patterns of eating pathology. |
| 18. Hinrichsen, Waller, & Wright (2001) | Fear of negative evaluation | 55 patients with AN, 59 with BN and 50 undergraduate controls, all women | FNE | • ED sig. higher levels of social anxiety.<br>• BN symptoms sig. associated with social anxiety across groups. |
| 19. Morrison et al. (2003) | Social comparison | 53 patients with AN, 39 with BN and 144 student controls, all women | INCOM and EDI | • No difference in levels of interpersonal comparison between groups.<br>• In the clinical group, interpersonal comparison sig. associated with restriction, whereas in the nonclinical group interpersonal comparison sig. associated with BN tendencies. Could be explained by high levels of perfectionism in ED with restrictive pathology. |
| 20. Meyer, Leung, Barry & De Feo (2010) | Attitudes towards emotional | 89 healthy female undergraduates | Attitudes Toward Emotional Expression scale (AEE) and the Eating Disorders Examination Questionnaire (EDEQ) | • Women with high levels eating disorder attitudes believed displaying emotion is a sign of weakness. |

| | | | | |
|---|---|---|---|---|
| | expression | | | |
| 21. Geller, Cockell & Hewitt (2000) | Expression of negative emotions | 21 patients with AN, 21 psychiatric patients and 21 controls matched on education, all women | Silencing the Self Scale (STSS) and the State Trait Anger Expression Inventory (STAXI) | • AN sig. higher on the four Silencing the Self schemas and suppressed anger.<br>• AN likely to avoid expressing thoughts/feelings when they conflict with those of others, and give priority to others' feelings over own. |
| 22. Espelage, Quittner, Sherman, & Thompson (2000) | Interpersonal problem solving | 12 patients with AN, 32 patients with BN, and 44 matched controls, all women | EDI, Center for Epidemiological Scale—Depression Scale (CES-D), Anorexia and Bulimia Problem Inventory (ABPI). | • ED sig. less effective problem-solving on the ABPI-R scales.<br>• Results remained significant after controlling for depressive symptoms. |
| 23. Troop, Holbrey, & Treasure (1998) | Interpersonal problem solving | 12 patients with AN, 21 with BN, and 21 controls, all women | The Life Events and Difficulties Schedule (LEDS)<br>The Coping Strategies Interview | • Similar rates of practical problem tackling in all groups but fewer BN subjects sought information.<br>• ED groups sig. less likely to be optimistic, more likely to show cognitive avoidance or cognitive rumination, particularly BN. |

Social support and adjustment

| | | | | |
|---|---|---|---|---|
| 24. Grisset and Norvell (1992) | Social support | 21 patients with BN and 21 healthy controls screened from 600 undergraduate women | Perceived Support Scale (PSS)<br>Quality of Relationships Inventory (QRI)<br>Social Competence Questionnaire (COM-Q).<br>Syptoms Checklist-90-R (SCL-90-R) | • BN sig. less perceived support from friends and family, more negative interactions and conflict, and less social competence.<br>• Authors propose poor social support creates vulnerability to stress which contributes to BN symptoms. |
| 25. Grisset & Norvell (2000). | Social support and competence | 21 undergraduates with BN and 21 healthy controls, all women | Quality of Relationships Inventory (QRI). Social Interactions Scale (SIS).<br>Social Competence Questionnaire (COM-Q). | • BN sig. less social competence and rated less socially effective by observers.<br>• Authors propose poor social support creates vulnerability to stress which contributes to BN symptoms. |
| 26. Koo-Loeb et al. (1998) | Social support | 15 patients with BN and 15 healthy controls, all women | Interpersonal Support Evaluation List (ISEL) | • BN endorse sig. fewer social support seeking methods than control women in response to stressful situations, after controlling for depression and anxiety. |
| 27. Tiller et al. (1997) | Social support | 44 patients with AN, 81 patients with BN, and 86 healthy student controls, all women | Significant Others Scale (SOS) | • ED had sig. smaller social network and less emotional/practical support. Patients set lower ideals for support.<br>• AN sig. less likely than BN to have spouse/partner as support. AN perceived their social support to be adequate, but BN patients were dissatisfied with their support. |
| 28. Herzog et al (1986) | Social adjustment | 1105 healthy female undergraduates | Social Adjustment Scale (SAS-SR) | • Those bingeing and purging at least once a week had sig. higher social maladjustment scores. |
| 29. Thompson & Schwartz (1980) | Social adjustment | 26 patients with AN, 25 college women with high levels of AN behaviour, and 26 controls, all women | SAS-SR | • AN seriously impaired in all social adjustment areas.<br>• AN symptoms in nonclinical group did not sig. affect academic performance, social/leisure adjustment or family relations. |
| 30. Johnson & Berndt (1983) | Social | 95 women with BN. Compared | SAS-SR | • BN sig. higher social maladjustment in all areas, but less maladaptive than |

| | | | | |
|---|---|---|---|---|
| | adjustment | scores to Weissman, Prusoff & Thompson (1978) | | acutely depressed women. |
| 31. Norman & Herzog (1984) | Social adjustment | 40 women with BN. Compared scores to Weissman, Prusoff & Thompson (1978) | SAS-SR | • BN sig. higher social maladjustment than control women, alcoholic women and women with schizophrenia studied by Weissman et al., (1978), at time of evaluation and 1-year follow-up. |
| 32. Rorty et al. (1999) | Social adjustment and support | 40 patients with BN, 40 in remission from BN and 40 healthy controls, all women | SAS-SR and SOS | • BN sig. fewer persons in friendship and kinship networks available for emotional support, but equivalent on persons available to provide practical advice.<br>• Both BN groups sig. more dissatisfied with quality of emotional support from relatives.<br>• On the SAS-SR, patients displayed the poorest overall social functioning. |
| 33. Evans & Wertheim (1998) | Relationship satisfaction | 5360 female undergraduates | Adult Attachment Style questionnaire (AAS), questions on satisfaction with intimacy, the Sexual Attitude Scale | • Women with more ED symptoms had sig. more difficulties in intimate relationships: less satisfaction with closeness, and more discomfort in intimate relationships. |
| 34. Van den Broucke Vandereycken & Vertommen (1995). | Marital communication | 21 ED patients and their husbands, and control groups of 21 maritally distressed (MD) and 21 nondistressed (ND) heterosexual couples. | Observational study: during discussion tasks interactions were videotaped and verbal and nonverbal communication skills rated using the KPI coding system. | • ED couples do not show a greater disequilibrium (between patient and husband) in the emission rate of positive and negative messages.<br>• ED couples lack some of ND couples' skills of constructive communication, but but manage to avoid destructive communication style of MD couples. |

1.4.5.2. Interpersonal Problems

Evidence regarding interpersonal problems in the eating disorders came from three studies administering the Inventory of Interpersonal Problems (IIP) to eating disordered individuals (studies 1, 2 and 3). All studies had quality ratings of (++). Hartmann et al. (2010) reported that patients with eating disorders have a generally non-assertive, submissive interpersonal style with higher levels of social inhibition and over-nurturance compared to a control sample. However, Hartmann et al (2010) used a mixed ED sample, and did not differentiate between diagnoses. In addition, the control data they used for comparison was collected more than 10 years previously (Brähler et al., 1999). Further research is therefore required to establish the differences between women with ED and controls, with current control samples.

Hopwood, Clark & Perez (2007) found a moderate correlation between bulimia and generalised interpersonal problems according to the IIP-64 ($r = .39$, $p < .001$). In addition, they also found that there was a fairly balanced distribution of women within the four clusters of the interpersonal circumplex proposed by Horowitz and Vitkus (1986) (warm-submissive, cold-dominant, cold-submissive and warm-dominant). In other words, women with BN are just as likely to have problems with being too warm to others as they are cold, and just as likely to have problems with being too dominant as they are submissive, and any combination of these traits is possible. As a result of this, the authors argue that bulimic features are not associated with a common interpersonal pathway but are related to a variety of interpersonal problems. Hopwood, et al., (2007) claim that these diverse findings can be explained by what they call pathoplasticity, the idea that interpersonal difficulties and bulimic features might mutually influence once another despite being etiologically unrelated. Following on from this, Ambwani & Hopwood (2009) replicated the result that women with BN were distributed evenly across quadrants of the interpersonal problems circumplex (warm-submissive, cold-dominant, cold-submissive and warm-dominant)). They used these results to further support the theory of pathoplasticity proposed by Hopwood et al., (2007).

However, studies which assess the relationship between eating disorder symptoms and interpersonal problems without controlling for the effects of variables such as depression, anxiety, perfectionism and neuroticism, have limited utility. For example, O'Mahony and Hollwey (1995) report that there is a significant relationship between eating symptomatology and interpersonal problems in AN and nonclinical groups. However, as these results became nonsignificant when general neuroticism was removed from the analysis, they concluded that psychosocial problems alone are unlikely to play a strong role in the development of eating

disorders. Therefore, studies should aim to assess the effect of possible mediating variables in the relationship between eating disorder symptomatology and interpersonal problems.

The many versions of the Inventory of Interpersonal Problems include a subscale that measures assertiveness. The remaining research that examines assertiveness in eating disorders (studies 5, 6 and 7, one with a methodological rating of + and two with ++) presents mixed findings. Troop, Allan, Treasure & Katzman (2003) found that there was a higher level of submissive behaviour in women with ED than controls, which supports the findings of Williams, Power, Millar, & Freeman (1993). However, while Mizes (1989) found that women did not report deficits in assertive behaviour, they did tend to avoid using problem-focused coping strategies in interpersonal situations. More research is required to clarify these findings.

It can be concluded from the above research that there appears to be an association between eating disorder symptoms and interpersonal problems, and that ED groups often have higher levels of interpersonal problems than controls. There is unlikely to be a particular type of interpersonal problem that is associated with eating disorder features. Instead, there is a higher incidence of general interpersonal problems in ED. However, more research is required to clarify associations between eating disorder symptoms and interpersonal problems. At present, studies lack sufficient control groups, do not assess possible mediators, and do not investigate whether interpersonal problems are risk factors for the development of ED or whether they are a result of ED. According to Hartmann, Zeek and Barrett (2009) however, interpersonal problems are a 'core' component of eating disorders in that they (1) serve as a risk factor for development of the disorder, (2) act to maintain the disorder, and (3) often develop as a result of the eating disorder. Pathoplastic models (e.g. Pincus, Lukowitsky & Wright, in press) also suggest that individual difference and psychopathology variables are mutually influential, and therefore one does not 'cause' the other.

#### 1.4.5.3. Social skills and interpersonal problem solving

Research focusing specifically on the social skills of those with eating disorders has found more conclusive results. There have been several research studies that suggest eating disordered individuals experience greater social skill difficulties than controls (studies 6, 7, and 8, all with quality ratings of ++) Wagner, Halmi and Maguire (1987) found that individuals with BN were more likely to report a sense of social ineffectiveness than healthy controls. This finding was replicated by Grisset & Norvell (2000), who confirmed that patients with BN reported less social competence than controls and were also rated as less socially effective by observers unaware of their diagnoses. The nature and extent of these social deficits require further

investigation and clarification, particularly in AN. These findings support the use of interpersonal psychotherapy in treating eating disorders. An attempt to maximise the individual's social skills and ability to form lasting relationships could improve both interpersonal functioning and eating disorder symptoms as a consequence. However, as in the interpersonal problems research, it remains unclear whether social skill deficits predict ED symptoms or whether the development of ED results in social skills deficits. It is likely that both are the case, however longitudinal research is required to clarify this.

Studies 23 and 24 (both with methodological ratings of +) focus on interpersonal problem solving. While Espelage et al. (2000) found that women with ED had less effective problem solving than women without ED after controlling for depression, Troop et al (1998) found that there were similar rates of practical problem solving between women with AN, BN and controls, but with those with BN being less likely to seek information about the problem. They also found that both women with AN and BN were more likely to be pessimistic and to ruminate on problems than controls, particularly those with BN. However, without controlling for depression, it is not possible to say whether the effect of ED results in rumination over and above the effect of depression, which has been linked to rumination regarding problems (e.g. Donaldson, 2004).

#### 1.4.5.4. Attitude towards emotional expression and fear of intimacy

The way in which an individual expresses emotion towards others can have an effect on their interpersonal interactions. Two studies provided evidence regarding attitude towards emotional expression (studies 20 and 21). Both have quality ratings of ++. In a nonclinical sample, Meyer, Leung, Barry & DeFeo (2010) reported that women who scored highly on the EDEQ's (EDE-Q; Fairburn & Beglin, 1994) eating, shape, and weight subscales believe that displaying emotions is a sign of weakness. These findings were replicated in a clinical sample in a study that used the Silencing the Self Scale (STSS; Jack & Dill, 1992). Geller, Cockell & Hewitt (2000) found that those with AN had higher scores on the Silenced Self scale compared than controls, after controlling for depression, self-esteem, and global assessment of functioning. They claim that this suggests individuals with AN are more likely to avoid expressing thoughts and feelings when they conflict with those of others. It appears then that the existing evidence suggests that those with eating disorder related attitudes and behaviours are more likely to avoid the expression of emotions, especially when they feel they will be perceived negatively. This is something that clinicians should bear in mind when formulating their patients interpersonal problems and planning treatment.

In addition to having a negative attitude towards emotional expression, those with ED have also been found to lack intimacy and closeness in relationships. (Studies 10 and 11, both with methodological ratings of +). Pruitt et al., (1992) found that despite having similar relationship histories to controls, women with BN had higher levels of fear of intimacy on the Fear of Intimacy Scale (FIS; Descutner & Thelen, 1991). Evans and Wertheim (1998) asked 5360 young women questions on satisfaction with intimacy, and found that there was an association between BN symptoms on the Bulimia Test Revised (Thelen et al., 1991) and discomfort in intimate relationships and less satisfaction with closeness. The effect that negative attitude towards emotional has on intimate relationships however is yet to be assessed. It remains unclear whether poor emotional expression leads to poor relationship quality in women with ED, although it appears likely. Similarly, direction of causality is yet to be investigated. It is considered that ED symptoms are likely to cause an individual to be more secretive, due to the shame that has been reported by people with ED (e.g. Burney & Irwin, 2000).

#### 1.4.5.5. Social anxiety and fear of negative evaluation

Recent research has explored associations between social anxiety and eating disorder symptoms and behaviours (studies, 14, 15, 16, 17 and 18, all with ratings of + or ++). According to Hinrichsen, Wright, Waller and Meyer (2003), social anxiety can be described as a fear of social situations, where the individual perceives themselves to be vulnerable to negative evaluation by other people. As eating disordered individuals are found to be sensitive about their appearance (Diehl, Johnson, Rogers, & Petrie, 1998; Haase & Prapavessis, 1998, Atlas, 2004), it has also been hypothesised that they may experience a more generalised sensitivity in other areas of functioning, and often assume that others think negatively of them. This concept is closely linked to the negative attitude towards the expression of emotions described above, which could be due to the individual's assumption that their emotions will be judged negatively or perhaps ignored.

Gilbert and Meyer (2003, 2005a, 2005b) have explored the association between social anxiety in the form of fear of negative evaluation and eating disorders. They used the Brief Fear of Negative Evaluation Scale, (BFNE-II; Carleton, McCreary, Norton & Asmundson, 2006), and found that restrictive eating attitudes were associated with a heightened fear of negative evaluation, while BN attitudes were not. Similarly, Atlas (2004) did not find correlations between interpersonal sensitivity and the EDI bulimia subscale. These findings were replicated by Hinrichsen, Waller and Wright (2001), while Striegel-Moore, Silberstein, and Rodin (1993) found that individuals with BN showed greater social anxiety and self-consciousness regarding how others viewed them compared to controls. Gilbert and Meyer (2005b) also explored whether

there were any differences in fear of negative evaluation from close friends and family and people in general. They found that while both general and close fear of negative evaluation were associated with restrictive attitudes (but not BN attitudes), only general fear of negative evaluation had predictive power on restrictive attitudes in a regression analysis. The longitudinal model of fear of negative evaluation predicting the development of restriction that the authors hypothesised was not found. In summary, research suggests that fear of negative evaluation is associated with restrictive attitudes but findings concerning BN attitudes remain inconclusive, and direction of causality is unknown. In addition, social anxiety is known to be associated with depression (e.g. Ingram, Ramel, Chavira & Scher, 2005), and the above studies do not consider depression as a mediator of the relationship between social anxiety and eating disorder psychopathology.

#### 1.4.5.6. Social comparison

Three studies focused on social comparison (studies 7, 17 and 19, all with ratings of ++). Gilbert and Meyer (2003) argued that high levels of social comparison can also be found in individuals with ED. In other words, the more the individual compares themselves and their achievements to that of others, the more likely they are to suffer from ED related attitudes and behaviours. While previous literature focused on appearance based comparisons (e.g. Heinberg and Thompson, 1992; Ruud and Lennon, 2000; Tsiantas and King, 2001), Gilbert and Meyer (2003) hypothesised that this comparison was relevant in all aspects of the individuals life, not just appearance. They found that levels of social comparison predicted BN attitudes. It has also been suggested that this more unfavourable social comparison is linked with the self reported submissiveness that is also found in ED (Troop, Allan, Treasure & Katzman, 2003). However, another study has reported that there were no differences between levels of social comparison between clinical and nonclinical groups (Morrison et al., 2003). This could be due to the fact that the clinical group and control group were quite heterogeneous, for example the clinical group was significantly older. Although it appears that the ways in which individuals compare themselves to others could be a relevant focus for treatment, more research is required before conclusions can be made in this area.

#### 1.4.5.7. Social maladjustment – a resulting lack of support

The above maladaptive interpersonal traits could lead to various social consequences for the eating disordered individual, such as a lack of close, meaningful relationships, a poor support network, negative interactions and conflict. There has been a significant amount of research exploring the social maladjustment of eating disordered individuals in these domains (studies 24 – 34, 2 with ratings of + and 8 with ratings of ++). Social adjustment has been researched

extensively in psychiatric populations, and is measured mostly by the Social Adjustment Scale-Self Report (SAS-SR; Weissman & Bothwell, 1976). Research in ED unanimously reports that social maladjustment is a chronic and enduring problem that is rarely treated adequately by therapeutic interventions. Significantly elevated overall social maladjustment scores have been found in individuals with ED compared to controls (Herzog, Norman, Rigott, & Pepose, 1986; Johnson & Berndt, 1983; Norman & Herzog, 1984; Thompson & Schwartz, 1980). However, there are still outstanding discrepancies in the way social adjustment is characterised in such studies. The main concern is the temporal issue of whether ED attitudes and behaviours play a role in causing social maladjustment, or whether social maladjustment plays a role in causing vulnerability towards developing ED related attitudes and behaviours.

Social support and social networks have also been studied in populations with ED. Grisset and Norvell (1992) found that patients with BN reported receiving less emotional and practical support from friends and family. They argue that this inadequate support creates vulnerability towards stress when difficult situations arise, which could contribute to the worsening of ED symptoms. They therefore argue that the support problems come before the development of the eating disorder. However their study had a small sample size and results require replication in larger samples. Tiller et al. (1997) found that ED patients had smaller social networks than a nonclinical population, and reported less emotional and practical support. In the clinical population, patients diagnosed with AN were less likely to identify having a partner as a source of support than those diagnosed with BN. Interestingly, patients with AN perceived their social support to be adequate, whereas patients with BN did not. It therefore appears that measures of social support and social networks that do not take into account the actual and the ideal are limited, as the researcher cannot assume that a poor social network is necessarily distressing for the individual. Similarly, it has been reported that women with BN have been found to endorse fewer social support seeking methods than control women in response to stressful situations (Koo-Loeb, Pederson & Girdler, 1998). This could be due to the fear of negative evaluation and negative attitude towards emotional expression described above. Therefore, just because sources of support are available this does not necessarily mean they are utilised.

In terms of negative social interactions, Steiger, Gauvin, Jabalpurwala, Sequin, and Stotl (1999) found that women with BN reported experiencing more negative social interactions in their daily lives, although there was no measure of whether these interactions were actually more negative or just perceived that way. Grisset and Norvell (1992) also found that patients with BN reported more negative interactions and conflict. Thus, the existing research suggests that individuals with BN have anxieties about potential social difficulties and may actually

experience more social problems. It is not clear, however, whether individuals with eating concerns interpret negative events differently or react more sensitively to them.

In terms of relationship satisfaction, women with eating problems report more discomfort with closeness and have been described to fear intimacy with a partner (Evans & Wertheim, 1998; Pruitt, Kappius & Gorman, 1992). These findings support theories in which women with eating problems were said to have an insecure attachment style. There is a wealth of existing research on attachment styles in ED which is beyond the scope of this review. See Ward, Ramsay & Treasure (2000) for a comprehensive review. Van den Broucke, Vandereycken & Vertommen (1995) carried out an observational study on the communication between heterosexual couples of which the female suffered from BN. Interestingly, they concluded that while these couples lacked skills of constructive communication, and more so than couples that were maritally distressed, they did not show greater disequilibrium between the amount of positive and negative messages that they gave to each other.

1.4.5.8. Study limitations

The studies presented in this review have several limitations. Many of the above studies concerning interpersonal functioning in ED failed to consider the effects of depression and anxiety. For example, both Norman and Herzog (1984) and Herzog et al. (1986) found there was significantly more social impairment in those with BN, and concluded that patients demonstrated wide ranging and persistent maladaptive social adjustment. However, having failed to control for level of depression, they did not acknowledge its potential as a mediator variable in the relationship between eating disorder symptomatology and social maladjustment. It is important to control for depression and anxiety as they often co-exist with eating disorders (Kaye et al., 2004; Swinbourne & Touyz, 2007; Wildes et al., 2007) and are also linked with poor interpersonal functioning (Montgomery, Haemmerlie & Edwards, 1991; Petty et al., 2004). At present, it remains unclear whether those with ED experience poorer interpersonal functioning than those with clinical levels of depression.

Secondly, the studies presented in this review rely solely on the use of self-report measures. Therefore, it is difficult to assess whether individuals with ED actually do have poorer interpersonal functioning or whether they simply perceive themselves this way. Similarly, without objectively measuring the quality of their interactions and relationships, it remains unclear whether individuals with ED experience more negative interactions or whether they interpret negative events differently and react more sensitively to them.

Finally, the studies in this review are largely cross sectional in nature, meaning that it is impossible to determine the causal structure of the relationship between interpersonal functioning and ED. According to Hartmann, Zeek and Barrett (2009) however, interpersonal problems are a 'core' component of eating disorders in that they (1) serve as a risk factor for development of the disorder, (2) act to maintain the disorder, and (3) often develop as a result of the eating disorder. Pathoplastic models (e.g. Pincus, Lukowitsky & Wright, in press) also suggest that individual difference and psychopathology variables are mutually influential, and therefore one does not 'cause' the other.

### 1.4.6. Discussion: a preliminary model

This review aimed to summarise and evaluate the empirical literature relating to the interpersonal functioning of those with eating disorder psychopathology, in order to generate ideas for future research. It is clear from the literature that there are many ways in which ED related attitudes and behaviours are associated with maladaptive interpersonal traits and related social maladjustment. The following preliminary model suggests potential links between maladaptive interpersonal traits and the consequences of these on social adjustment in the context of eating related attitudes and behaviours according to the existing literature. The model is a visual representation of the findings of this review, and therefore allows the reader to see the links in the existing literature, and also where more research needs to be conducted to build further links.

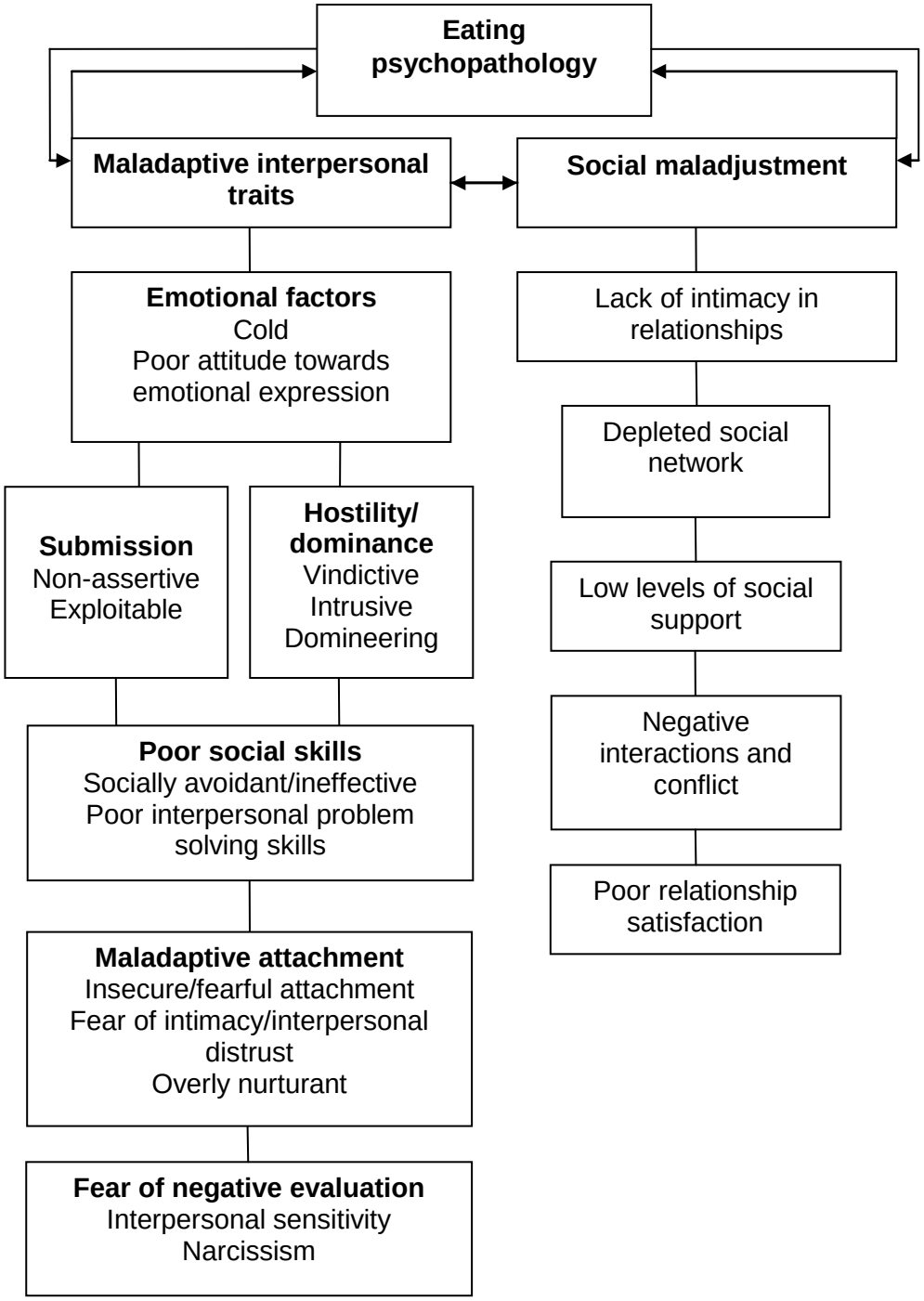


Figure 1.2. Interpersonal functioning in the eating disorders: A preliminary model

The multidirectional arrows indicate that it is not yet known which aspects of the model are causal. For example, while it is clear that eating disordered individuals have maladaptive interpersonal traits, it is not clear whether it is these traits that initially cause the eating disorder, or vice versa. It is clear from the model that there are no links drawn between the maladaptive interpersonal traits and social maladjustment. It is not yet possible to draw links between aspects of interpersonal problems and aspects of social maladjustment at present as research

has only examined associations between each aspect and eating disorder symptoms, not the associations with other aspects. For example, while it has been suggested that those with an eating disorder are more likely to have a poor attitude towards emotional expression, it is not clear whether this attitude is associated with the lack of meaningful relationships found in these individuals, although it appears likely.

There are several limitations of the proposed model. Firstly, it is not diagnosis specific and therefore does not distinguish between interpersonal functioning in AN and BN. Future work could develop a model for each disorder to indicate the differences found between diagnostic groups. The model also does not distinguish between interpersonal functioning in different relationships such as with family, friends and romantic partners. It is likely that the eating disordered individuals' interpersonal problems are influenced by the context of the relationship. Future work could develop this distinction, and further research on interpersonal functioning within the context of romantic relationships could assess sexual functioning, which is considered a vital aspect of intimate relationships, and is not included in the present review.

#### 1.4.7. Conclusions

The aim of this review was to summarise and evaluate the available evidence that could support or refute the hypothesis that people with eating disorders experience maladaptive interpersonal functioning. Results indicate that in general, poor interpersonal functioning is associated with ED symptoms and individuals with ED have a poorer level of interpersonal functioning than healthy controls. This supports the clinical utility of therapies such as interpersonal psychotherapy in the treatment of ED. However, results are mixed and often do not take into account comorbid psychopathology. A substantial amount of research remains to be done, particularly longitudinal studies and those which control for depression and anxiety. A preliminary model of interpersonal functioning in the eating disorders has been proposed, however results require replication. A large amount of research still needs to be conducted in order to develop a holistic understanding of the eating disordered individual's interpersonal world.

## 1.5. A possible cause of maladaptive interpersonal functioning in the eating disorders

### 1.5.1. Introduction

When considering the nature of the relationship between interpersonal functioning and eating disorder related psychopathology, it is important to consider the origins of interpersonal functioning in this context. There are many factors that could play a role in the development of

maladaptive interpersonal functioning. This thesis begins to explore one of these factors – the experience of an invalidating childhood environment, and its relationship to adult interpersonal functioning and eating concerns. This section describes some of the factors that could lead to poor adult interpersonal functioning, including invalidating childhood environments.

### 1.5.2. Invalidating childhood environment

There are several factors that have been suggested as possible causes of poor adult interpersonal functioning. Studies have found serious and enduring psychosocial consequences of depression during adolescence, and early adulthood, particularly in terms of interpersonal functioning (e.g., Coryell et al., 1993; Gotlib, Lewinsohn, & Seeley, 1998; Kessler, Avenevoli, & Merkigangas, 2001; Puig-Antich et al., 1993; Reinherz, Giaconia, Hauf, Wasserman, & Silverman, 1999). However, it remains unclear whether these interpersonal difficulties are products of depression or whether interpersonal problems served as vulnerability factors for the depression. Eberhart and Hammen (2006) argue that interpersonal difficulties are more likely to be consequences of depression.

One factor which has been commonly associated with later poor interpersonal functioning is childhood sexual abuse (CSA). CSA has been linked with *intrapersonal* problems such as depression, anxiety, posttraumatic stress disorder (PTSD), and substance misuse (DiLillo, 2001), as well as being linked extensively to eating disorders (see Smolak & Murnen, 2002, for a review). CSA has also been linked to *interpersonal* problems. The relationships of women reporting a history of CSA have been described by clinicians as being maladaptive (e.g. Kirschner, Kirschner & Rappaport, 1993; Meiselman, 1990) and PTSD studies suggest that impaired interpersonal functioning is often found in survivors of psychological trauma (e.g. Dorahy et al., 2009). In terms of how such experiences lead to the development of later interpersonal difficulties, several theories have proposed potential pathways, such as interpersonal schema theory (Cloitre, 1998), and attachment theory (Alexander, 1992).

One possible cause of poor interpersonal functioning is the experience of an ‘invalidating childhood environment’. Linehan (1993) defined this as an environment where the child’s emotional experiences are not validated by the parents and the expression of such emotions is met with neglect or punishment. Growing up in such an environment can lead to the child viewing their experience of emotions as incorrect, and this results in the child having an inability to cope with distress. As the child did not learn to label and cope with their emotions, eventually they do not trust their own feelings (Linehan, 1993). Such invalidating childhood environments have been found to be relevant to the eating disorders. Mountford, Corstophine, Tomlinson &

Waller (2007) developed a measure to assess invalidating childhood environments (ICES) and found that emotional invalidation was associated with poor distress tolerance, which in turn was related to eating psychopathology. Haslam, Mountford, Meyer and Waller (2008) extended this work to examine difference in invalidating childhood environment across diagnostic groups. They concluded that such environments were associated with the presence of bulimic behaviours. Vomiting was associated with paternal invalidation while the experience of an emotionally controlled, high achieving family style (Linehan's (1993) 'typical' family style) was associated with excessive exercise. Following on from this, it appears that women who experienced invalidating childhood environments have *intrapersonal* difficulties. Their reduced ability to label and cope with their own emotions could also lead to interpersonal difficulties, as they could have the belief that expressing their emotions to others will be met with neglect or punishment.

## 1.6. Treatment of eating disorders

According to Striegel-Moore (2000), specialist eating disorder treatment is rare and often eating disorders remain undetected or undertreated. Patients may spend a long time in primary care or non-specialist treatment centres which can cause extra costs for the NHS (Howlett, 1995). Once a patient reaches a specialist service however, there are several treatments offered. In the UK and US outpatient treatment is the norm, with hospitalisation rates low (NICE, 2004). The NICE eating disorders clinical guideline (2004) covers physical and psychological treatments, treatment with medicines, and what kinds of services best help people with eating disorders. Treatment usually involves monitoring a person's physical health while helping them to deal with the underlying psychological causes.

### 1.6.1. Outpatient treatment

There are several psychological treatments recommended for the treatment of eating disorders on an outpatient basis. According to NICE guidelines (2004), psychological treatment aims to reduce risk, encourage weight gain and healthy eating, and reduce eating disorders psychopathology to facilitate psychological and physical recovery. The guidelines also state that such psychological treatment should have a focus both on eating, weight and shape, and on wider psychosocial issues. The therapist aims to help the individual express their emotions without using food, and hopes that they will learn how to cope with negative feelings in a less destructive way.

Cognitive behaviour therapy (CBT) is by far the most well researched therapy for the treatment of mental health problems such as depression and anxiety disorders. In the field of

eating disorders, there is much more evidence regarding the efficacy of CBT in the treatment of BN and BED than for AN (NICE, 2004). The aim of CBT for the eating disorders is to challenge the individuals automatic negative thought patterns and look for alternative, adaptive thoughts and coping mechanisms (Fairburn, 1981). The evidence base for other psychological therapies such as interpersonal psychotherapy, on which this research is based, is growing (Rieger et al., 2010). The aim of IPT in the treatment of eating disorders, particularly BN, is to improve the individual's interpersonal life, which in turn is thought to improve their eating disorder symptoms (Fairburn, 1981). The number of psychotherapeutic treatments for eating disorders has expanded remarkably in the past twenty years. Specialised treatments such as cognitive analytic therapy (CAT) and dialectical behaviour therapy (DBT) have also been considered in complex eating disorder cases. The psychological therapy chosen for the individual will depend on the service, the patient's preference, the nature of related psychological features, and factors such as their age (NICE, 2004). Family therapy is the recommended treatment for children and adolescents suffering from anorexia nervosa, research finding that adolescents suffering from this condition generally do well when the main treatment is family therapy, often without the need for inpatient treatment (Le Grange, 2005).

Pharmacotherapy has been used in addition to psychological therapies or to treat co-morbid psychological problems. In BN and BED, there is some evidence that antidepressants can help in the cessation of bingeing and purging behaviours (e.g. Bacaltchuk, Hay & Mari, 2000). A review by Flament, Bissada and Spettigue (2012) indicates that in 81% of studies using antidepressants, there was a significant although moderate reduction in the frequency of bingeing and purging. In AN, the same review found that olanzapine was helpful in treating underweight inpatients, and fluoxetine helped prevent weight loss in AN patients. However according to Jackson, Cates and Lorenz (2010), medication trials in eating disorders are fraught with methodological problems, such as high dropout rates, insufficient doses, short trial duration and difficulties in measuring outcome. In addition, data on the long-term efficacy of pharmacotherapy for eating disorders are scarce.

In summary, psychological treatment is considered the primary treatment for eating disorders. There are many treatments available, and although the evidence base is strongest for CBT, the research evidence for other psychological therapies such as interpersonal psychotherapy is growing (Rieger et al., 2010). However, according to Andersen, Bowers and Evans (1997), the comprehensive treatment of eating disorders, particularly anorexia, often requires inpatient care.

### 1.6.2. Inpatient treatment

If outpatient treatment is proving unsuccessful, or if the psychiatrist or psychologist feels a greater level of support is needed, someone with anorexia may be admitted to hospital, either to non specialist or specialist beds. Inpatient beds or day care is available in specialist eating disorder units, which usually consist of a ward in a hospital offering structured care which is dedicated solely to the treatment of patients with eating disorders. According to NICE guidelines (2004), a structured symptom focused treatment plan should be provided with the expectation of weight gain. Inpatient routine consists of regular, supervised meals and snacks, with nursing staff offering support and encouragement. Those on weight increasing diets are supervised after meals to prevent vomiting, have restricted exercise and restricted access to kitchen and food supplies to stop bingeing. Psychological treatment should be provided, and this treatment should have a focus both on eating, weight and shape, and wider psychosocial issues. This can include individual therapy, group therapy with other patients, and family therapy involving parents, siblings or partners.

## 1.7. Interpersonal psychotherapy

As described in section 1.6.1. Interpersonal Psychotherapy (IPT) is one of several treatments that are recognised by NICE guidelines (2004) as effective for treating eating disorders. Interpersonal psychotherapy (IPT) is a time limited psychotherapy which concentrates on problems of an interpersonal nature on the premise that psychiatric syndromes occur in a social and interpersonal context. The effectiveness of IPT provides further evidence that interpersonal deficits may be an important factor in the eating disorders. The following section will describe the origins of IPT in the treatment of depression, the adaptation of IPT to treat bulimia nervosa (IPT-BN), and finally the modified version of the therapy on which this research is based.

### 1.7.1. The origins of IPT

IPT was developed for the treatment of depression and originates from theories in which interpersonal functioning is recognised to be a critical component of psychological wellbeing. The work of 1930's psychiatrist Harry Sullivan first suggested that patients' mental health was related to their interpersonal contact with others. Challenging Freud's psychosexual theory, Sullivan emphasized the role of interpersonal relations, society and culture as the primary determinants of mental health (Sullivan, 1953). Sullivan's work was further developed by Gerald Klerman and Myrna Weissman in the 1980's, who studied depression treatments using the interpersonal approach. Whilst studying the efficacy of tricyclic antidepressants, alone or paired

with psychotherapy, it was found that 'high contact' counselling was effective, leading to the further development of the therapy which was renamed interpersonal psychotherapy (Klerman, DiMascio, Weissman, Prusoff, & Paykel, 1974). These positive results led to the inclusion of IPT in the National Institute of Mental Health Treatment of Depression Collaborative Research Program, which compared the therapy with antidepressants, placebo and CBT for depression (Elkin et al., 1989). Patients in all conditions showed significant reduction in depressive symptoms and improvement in functioning, those having imipramine plus clinical management generally doing best, the two psychotherapies second best, and placebo plus clinical management worst. There was no significant difference between the two psychotherapies. The original IPT manual, Interpersonal Psychotherapy for Depression, was published in 1984 as a manual for the research project (Klerman, Weissman, Rounsaville, & Chevron, 1984).

### 1.7.2. Original IPT: The structure of IPT for depression

IPT is a weekly outpatient treatment lasting between 15 and 20 sessions of around 45 minutes each, over a 4-5 month period. This section describes the three phases of IPT, the beginning, middle and end.

The first phase of IPT usually lasts from session 1 to 4 and the primary goal here is to engage the patient in treatment, establish a treatment contract and then identify current interpersonal problems. This involves reviewing the patients current social functioning and close relationships, and any changes in these that occurred around the onset of symptoms (e.g. bereavement, marital problems or social isolation). The depression is diagnosed by standard criteria and the therapist gives the patient the sick role (Parsons, 1951), which is designed to excuse the patient from overwhelming social obligations while still ensuring the patient commits to therapy. Several tools are used in order to facilitate understanding of the patients problems, including a timeline where interpersonal events are plotted alongside symptoms, and an interpersonal inventory where a network of the patients significant others is drawn.

Towards the end of the initial sessions, a focus area for therapy is chosen. The choice of focus area determines the target of therapy during the middle sessions. There are four possible areas: grief, role transitions, interpersonal role disputes and interpersonal deficits. Grief is identified as the focus area when the onset of the depressive symptoms are related to the death of a person. The aim of treatment in this instance is to facilitate mourning and help the patient find alternative relationships to substitute for the loss. Role transitions apply when there are difficulties that have arisen from a change in the person's roles, such as becoming a mother, moving location, leaving a job and other life changes. Treatment aims to help the patient to manage the change by recognising positive and negative aspects of the new role they are

assuming. Interpersonal role disputes involve conflicts with a significant other which arise because of a difference in expectations about the relationship. The aim here is to help the patient identify the nature of the dispute and consider options to resolve it. If this appears impossible, the therapist assists the patient to dissolve the relationship and mourn its loss. Finally, interpersonal deficits apply to those patients who are socially isolated or maintain maladaptive relationships due to a lack of self esteem or assertiveness, or other such problems (Weissman, Markowitz & Klerman, 2000). IPT aims to help improve the patients' social skills and reduce social isolation by helping to enhance the quality of existing relationships and encourage the formation of new ones.

The development of the interpersonal problem areas was based on research into the psychosocial aspects of depression. Specifically, there is evidence that complicated bereavement (Maddison, 1968; Maddison & Walker, 1967; Walker et al., 1977) marital disputes, which are framed as interpersonal role disputes (Paykel et al., 1969; Pearlin & Lieberman, 1977) and interpersonal role transitions are linked with depressive disorders (Overholser & Adams, 1997).

Although the therapist decides the focus area and develops the interpersonal formulation, the patient needs to agree that this represents their primary problem and attempt to work on it during treatment. Indeed, the patients may fall into several problem areas, however the time-limited nature of IPT requires that one, or at maximum two, problem areas are chosen in order to define a focus for treatment. The focus area chosen defines the treatment plan and the specific goals that are aimed towards during treatment.

The final sessions of IPT involve encouraging patients to identify changes in their symptoms and how these relate to improvements in the identified problem area. The therapist assists the patient in evaluating and consolidating gains from therapy. They are also encouraged to acknowledge the feelings associated with ending therapy. Relapse prevention plans are formed, outlining remaining work for the patient to do without the therapist's assistance.

### 1.7.3. Efficacy and predictors of outcome in IPT for depression

This section describes the research literature regarding the efficacy of IPT and the psychological factors associated with good and poor outcome. There have been several systematic reviews of studies investigating the efficacy of IPT for depression (Jarrett & Rush, 1994; Klerman, 1994; Feijo de Mello et al., 2005). Feijo de Mello et al. (2005) conducted a meta-analysis of studies investigating the efficacy of interpersonal psychotherapy for depressive

disorders. They concluded that IPT was superior to placebo in nine of thirteen studies and better than cognitive behavioural therapy overall. However IPT plus medication was no more effective than medication alone. In a qualitative study of the effectiveness of IPT, Crowe & Luty (2005) conducted a thematic analysis on audiotaped IPT sessions for depression and concluded that there was a general improvement in mood. This improvement involved struggling with symptoms initially, deconstructing their interpersonal patterns and altering this pattern, and then reconstructing the sense of self. Because not all participants reported an improvement in mood, they analysed transcripts further and identified several characteristics associated with good and poor outcome. These were: the ability to engage in more than one perspective and to take responsibility for actions, empathy for others, a desire to change, good communication skills, and a sense of cooperation and willingness to engage with the therapist. Several psychological factors have been identified as associated with good therapeutic outcome in IPT. Crowe and Luty (2005) found that were all associated with improvement in mood. However these associations require replication in quantitative research.

Feske, Frank, Kupfer, Shear, & Weaver (1998) examined predictors of outcome in 134 female patients with major depression who were part of an outpatient treatment study on the effects of maintenance IPT. They found that those who did not improve (who still had scores of above 8 on the Hamilton Rating Scale for Depression for three consecutive weeks at the end of therapy) experienced higher levels of anxiety and were also more likely to meet diagnostic criteria for panic disorder. In addition, they found that poor outcome was associated with greater vocational impairment, longer duration of episode, more severe illness, and surprisingly, lower levels of social impairment. They suggest that this is the case because IPT focuses specifically on social impairment and therefore those with lower levels have less room to improve. Finally, personality disorder traits have also been found to adversely affect those who are randomised to IPT whilst the same affect was not found in CBT (Joyce et al., 2007). The authors concluded that despite comparable efficacy in the two therapies, IPT is more affected by personality traits and therefore is less suitable for those with personality disorders. However, Blom et al. (2007) asserted that it is the severity and duration of depression that influence IPT outcome rather than personality factors. Regression analyses showed that while severity, duration of illness and use of medical services each uniquely predicted outcome, personality factors did not significantly contribute to the prediction model. It is clear that studies have produced variable results and that there is a considerable amount of research left to be done before conclusions can be drawn regarding factors associated with good and poor outcome in IPT for depression.

### 1.7.4. IPT for bulimic disorders

Since the conception of IPT, the original IPT manual has been updated (e.g. Weissman, Markowitz & Klerman, 2000; Weissman, Markowitz & Klerman, 2007) and several manuals have been written concerning modifications of IPT, including those for depressed adolescents (Mufson, Dorta, Moreau & Weissman, 2004), the elderly (Hinrichsen & Clougherty, 2006), perinatal women (Weissman, Markowitz, & Klerman, 2000), and HIV patients (Pergami, Grassi, & Markowitz, 1999). The National Institute for Clinical Excellence (NICE, 2004a) now states that while CBT remains the treatment of choice for those who are depressed, IPT should be considered if the individual requests it or if the clinician sees a need for an alternative therapy. The applications of IPT have also developed outside of depression, and manuals also exist concerning the treatment of bipolar disorder (Frank, 2005), social phobia (Hoffart et al., 2007), dysthymic disorder (Markowitz, 1998) and finally bulimia nervosa (IPT-BN; Fairburn, 1993). This section describes the development and efficacy of IPT-BN.

#### 1.7.4.1. The development of IPT- BN

Fairburn et al. (1993) modified the original IPT for depression to be used as a control treatment in a randomised controlled trial for BN patients. He named this modification of IPT as IPT-BN. IPT-BN was not developed systematically through an adaptation from IPT for depression, but instead was discovered to be effective when used as a control treatment for this trial (Fairburn et al., 1991). IPT was not adapted specifically for bulimia in the treatment trial, and beyond limited initial psychoeducation, eating problems were not addressed during the treatment. It was hypothesised that as IPT shared some nonspecific factors with CBT, its inclusion in the trial would highlight the benefits of cognitive behavioural techniques in CBT that were not present in IPT. However, while CBT was considered most effective, IPT also resulted in the improvement of eating disorder symptoms. This discovery led to the further development of IPT-BN as a viable treatment option, and it was manualised in 1993 (Fairburn, 1993).

In IPT-BN, the basic principles remain largely the same as in IPT for depression. The rationale of IPT-BN suggests that those who exhibit eating disorder attitudes and behaviours do so in response to interpersonal disturbances. In improving the individual's' ability to utilise their social support networks and manage these interpersonal deficits, IPT aims to reduce bulimic attitudes and behaviours. In the initial sessions the therapist takes a history of the eating disorder symptoms, and the patients interpersonal functioning and significant life events in relation to the symptoms (Fairburn, 1997). The therapist explains how the patients focus on eating, shape and weight can distract them from their interpersonal difficulties, for example when binges follow painful emotions. The sick role is particularly important here, as many eating

disordered individuals camouflage their own social difficulties by meeting others needs rather than their own, and the sick role relieves them of excessive caretaking tendencies (Wilfley, Stein & Welch, 2003). Once therapist and patient agree on a formulation, the symptoms of bulimia are related to the key interpersonal problem area in the same fashion as in IPT for depression. However, unlike in IPT for depression, after the initial sessions, Fairburn's trial therapists were told not to let patients talk about their bulimic symptoms for any more than ten seconds. Excessive talk about symptoms was considered distracting and removes the eating disorder from its interpersonal context.

1.7.4.2. Efficacy of IPT-BN

Since its conception, IPT has been recognised by NICE guidelines as one of few effective psychotherapies for bulimia (NICE, 2004), and has been compared to cognitive behavioural therapy (CBT), the current treatment of choice with equally positive results in both individual and group settings (Fairburn, 1997; Fairburn, Jones, Peveler, Hope, & O'Connor, 1993; Fairburn et al.,1991; Roth & Ross, 1988; Wilfley et al., 2002; Wilfley et al., 1993). Although IPT-BN should be considered as an alternative to CBT, according to NICE (2004) patients with bulimia should be informed that the above studies have found that it can take between 8-12 months to achieve comparable results. For example, Agras et al (2000) found that CBT was superior to IPT-BN at the end of treatment however there was no significant difference between the two treatment outcomes at follow up.

Despite the finding that IPT-BN is as effective as CBT in the long term, it is not known how the therapy achieves its beneficial effects. Fairburn (1997) claims it is likely to be through several mechanisms. Firstly, IPT-BN helps patients to overcome well established interpersonal difficulties, for example when focusing on interpersonal 'role transitions' this can be helpful for those patients who have missed out on the interpersonal challenges of early adulthood as a result of their eating disorder. Secondly, Fairburn (1997) claims that IPT-BN can open up new interpersonal opportunities and as a result patients learn to rely more on interpersonal functioning for self evaluation instead of focusing wholly on eating, weight and shape. Finally, IPT-BN gives patients a sense that they are capable of influencing their interpersonal lives and therefore may lessen their need to control their eating, weight and shape.

1.7.4.3. A modified version of IPT-BN

Although the results of clinical trials suggest that IPT-BN (Fairburn, 1993) is effective in treating bulimia, the therapy was created originally as a control treatment for CBT and therefore any techniques within the therapy that were similar to cognitive behavioural techniques were

removed. While these techniques are present in the original form of IPT for depression, they were removed from IPT-BN in order to make comparisons with CBT-BN. According to Arcelus et al. (2009) this resulted in the loss of some of IPT's principle components which could prove useful to therapy, for example psycho-education, directive techniques, problem solving, modelling role play and decision analysis. The IPT team at Leicester, one of the main centres for training and research in IPT, added these components back into the IPT-BN (Whight et al., in preparation).

This IPT which was developed for the treatment of bulimic disorders consists of 16 weekly sessions, split into 4 initial sessions, 10 middle sessions and 2 final sessions. The initial sessions focus on identifying the interpersonal context that maintains the eating disorder. The therapist provides psychoeducation regarding the patients' eating disorder symptoms and food diaries are often used in order to gain an accurate picture of the patients eating patterns. This is in contrast to IPT-BN, which did not include psychoeducation or food diaries as these techniques were included in CBT-BN. Various tools are used in order to formulate the patients problems, including a timeline where interpersonal events are plotted alongside symptoms, and an interpersonal inventory where a network of the patients significant others is drawn. During the final initial session, a focus area is chosen from one of four possible areas: complicated grief, interpersonal role disputes, interpersonal role transitions, and interpersonal deficits. The chosen focus area forms the basis of the work in the middle sessions, the strategies used within these sessions depending on the chosen focus area. The middle sessions continue to identify the relationship between the interpersonal focus area and the eating disorder symptoms, which are monitored each session. The patient learns to recognise this relationship and makes changes to their interpersonal interactions. The middle sessions are where the behavioural change techniques that were excluded from IPT-BN occur. In the final two sessions, the ending of therapy is discussed along with relapse prevention techniques where the patient is encouraged to monitor their symptoms after therapy has ended.

This IPT is suitable for patients with bulimic disorders, those are patients who fulfil diagnostic criteria for typical and atypical BN as classified under ICD-10 and BN and EDNOS BN subtype under DSM-IV criteria (Fairburn, 1981). Using DSM-IV criteria, it is suitable for patients with bulimia nervosa, EDNOS bulimic spectrum and binge eating disorder (Whight et al., 2010). IPT is not designed for patients at a low weight (Whight et al., 2010).

There is little known about the efficacy of this IPT for BN despite its use for the last 12 years. Arcelus et al (2009) conducted a case series evaluation of 59 patients and found that by the middle of therapy there has been a significant reduction in eating disordered cognitions and

behaviours and depression, alongside an improvement in interpersonal functioning. However the researchers did not compare IPT with a control treatment and therefore it remains difficult to draw conclusions about the efficacy of this version of IPT compared to the IPT-BN developed by Fairburn et al. (1993). It is unclear whether adding back in the aspects of IPT that were excluded in the original IPT-BN trails makes the therapy more or less effective although the authors found that changes in BN symptomatology occurred quickly. Because IPT-BN was discovered to be effective by accident through its use as a control treatment, it is clear that the original version worked, but not *why* or *how*. It is also unknown which factors are associated with good or poor outcome.

In recent months, a new theoretical model of IPT for the eating disorders has been proposed (Reiger et al., 2010). This model suggests that eating disorders are triggered by negative feedback regarding an individual's social worth due to its negative effect on self esteem and associated mood. Eating disordered behaviours often begin because of this negative social evaluation, and over time such behaviours may become a more reliable source of self esteem and mood regulation than social interactions (Rieger et al., 2010). The aim of IPT then is to help the patient to develop positive, healthy relationships which replace the eating disorder in the attainment of positive esteem and affect. This newly proposed model supports the use of IPT, as it also includes the monitoring of eating disorder symptoms and other elements which were taken out of the original IPT-BN to make it comparable with CBT. However, this new therapeutic model has not yet been supported by empirical studies.

#### 1.7.4.4. Conclusions

IPT-BN aims to treat maladaptive interpersonal functioning by helping the individual to develop healthy relationships which provide more positive esteem than eating disorder symptoms. A modified version of IPT for BN combines the original version of IPT-BN with principles that were originally excluded from the treatment such as psychoeducation and symptom monitoring. At present there is no research assessing the efficacy of this version of the therapy although preliminary results are positive.

## 1.8. Aims of this thesis

The study of interpersonal functioning in the eating disorders presents multiple factors that may contribute to the aetiology and maintenance of these disorders. Some characteristics of interpersonal functioning in people with eating disorder related attitudes and behaviours could represent a vulnerability to the development of the disorders. However, in existing models such as the transdiagnostic model, interpersonal functioning is only represented under vague

headings such as ‘life events’. The preceding systematic review of the literature regarding links between eating disorders and maladaptive interpersonal functioning has led to the identification of several areas that require further research.

The overall aim of this thesis is to inform one of the current treatments of eating disorders: interpersonal psychotherapy. In order to do this, this thesis has two foci. Firstly, this research focuses on the relationship between maladaptive interpersonal functioning and eating disorder related psychopathology. In order to do this, this thesis endeavours to provide a systematic examination of the concept of interpersonal functioning in both clinical and nonclinical populations. Developing our understanding of the ways in which interpersonal functioning is associated with eating disorder symptoms helps clinicians to understand which interpersonal issues patients are likely to present with. It also helps us to assess the role interpersonal functioning may have in the development and maintenance of eating disorder symptoms. It is hypothesised that maladaptive interpersonal functioning will be associated with eating disorder related attitudes and behaviours, and that women with eating disorder related attitudes and behaviours will experience a higher level of maladaptive interpersonal functioning. As a result, it is hypothesised that their relationships may be affected and their social networks depleted. It is also important to consider the possible causes of maladaptive functioning as this could help inform treatment which aims to treat such interpersonal functioning. This thesis explores one possible cause of poor interpersonal functioning – the experience of an invalidating childhood environment.

Secondly, this thesis focuses on how both maladaptive interpersonal functioning and eating disorder symptoms are targeted by interpersonal psychotherapy. Patients’ experiences of the therapy will be investigated. It is aimed to identify more clearly the ways in which this therapy targets both eating disorder symptoms and interpersonal problems, and the ways in which it does not. Secondly, clinicians’ experiences of delivering the therapy will be explored. Here it is aimed to identify therapists’ perceptions of how IPT helps eating disordered individuals and how it does not. No hypothesis is made for the research addressing this second aim due to its qualitative nature. The aim is not to make conclusions about the efficacy of IPT, but to explore a range of perceptions regarding the short-term treatment. See figure 1.4. for a visual representation of the foci, objectives, samples and methods in this thesis.

The specific aims of each study presented in this thesis are:

- To identify the aspects of maladaptive interpersonal functioning which are associated with eating disorder related attitudes and behaviours, and to establish whether there are

differences between eating disordered and healthy control groups (Study 1, Study 2, Study 3)

- To investigate a possible cause of poor maladaptive interpersonal functioning and eating concern (Study 4)
- To explore patients' perceptions of their interpersonal functioning in relation to their eating disorder (Study 5)
- To explore patients' perceptions of interpersonal psychotherapy for bulimic disorders (Study 6)
- To explore therapists' perceptions of interpersonal psychotherapy for bulimic disorders (Study 7)

For the purpose of this thesis, maladaptive interpersonal functioning is defined as internal psychological processes which in turn have a negative effect on interpersonal interactions and relationships. According to Sullivan (1968) the term 'interpersonal' encompasses not only the patterns of interaction between the individual and significant others, but also the process by which these interactions are internalised and form part of the self image. This research is concerned specifically with exploring such maladaptive interpersonal functioning as aspects of the eating, weight and shape concerned individual's personality, and does not investigate the consequences of such aspects on social adjustment or satisfaction with relationships. Although there is a considerable amount of research that studies social adjustment and eating disorders by rating the satisfaction of relationships and the amount of conflict, the present thesis is only concerned with interpersonal problems on a more intrapsychic level – as internal psychological processes of the eating disordered individual.

This thesis focuses primarily on the interpersonal functioning and treatment of those diagnosed with bulimic disorders. This is because at present IPT has not been adapted for the treatment of anorexia, and the eating disorder service that collaborated in this research had a primarily bulimic sample from which to recruit participants. However, general eating disorder related attitudes are explored within the nonclinical data presented in this thesis, so as not to exclude anorexic attitudes and behaviours. Researchers have suggested that theoretically, IPT could be helpful in the treatment of anorexia (McIntosh, Bulik, McKenzie, Luty, & Jordan, 2000), and so future research could employ participants with anorexia in order to further our understanding of such individuals interpersonal functioning.

In summary, this thesis aims to contribute to and further our understanding of the role of interpersonal functioning in the experience and treatment of eating disorders, and hopes to further inform treatment based on findings of these studies.

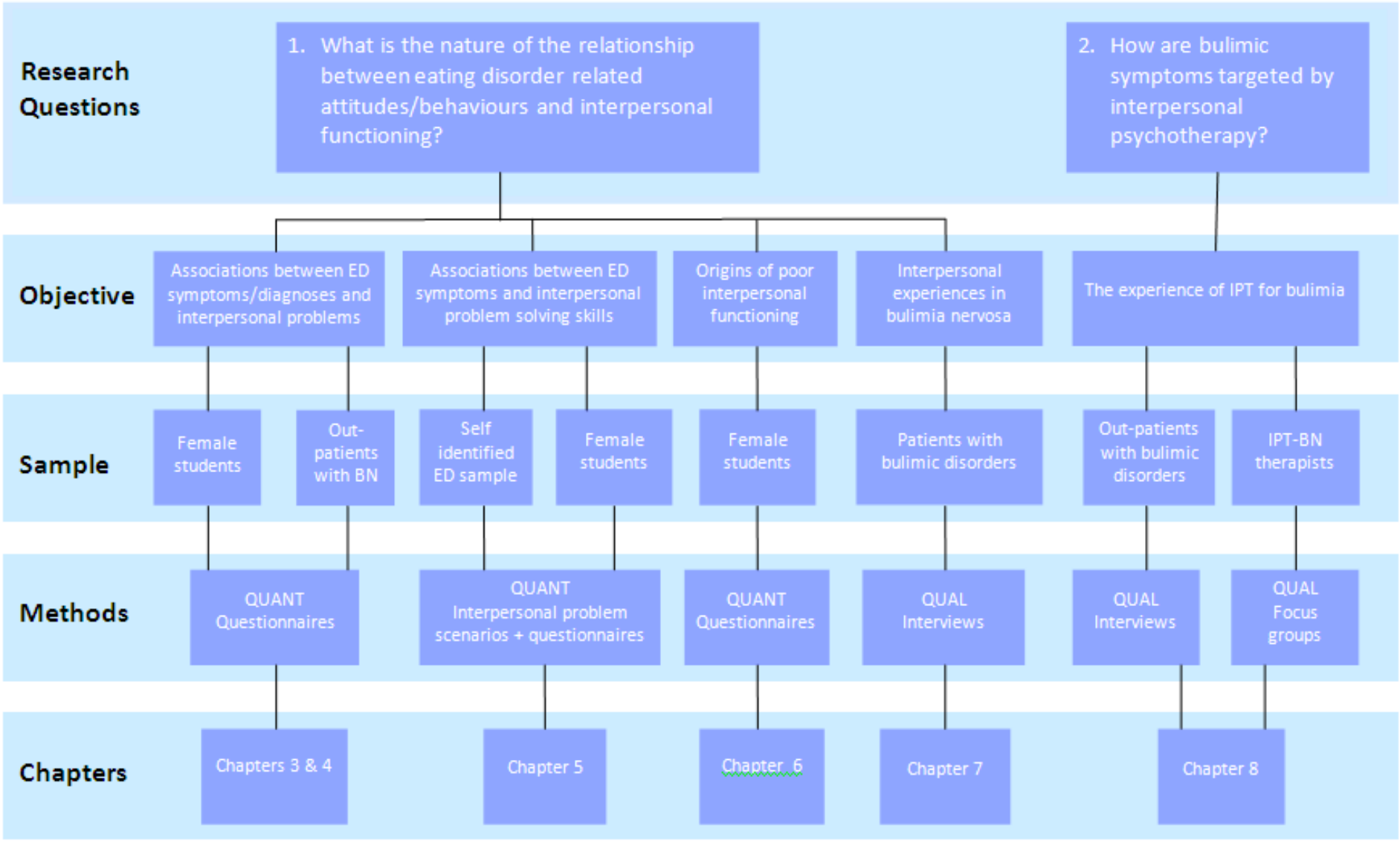


Figure 1.4. Foci, objectives, samples, methods and chapters

# Chapter 2

# Methodology

# 2. Methodology

## 2.1. Introduction to the chapter

This chapter describes the methodology used in this thesis. A variety of quantitative and qualitative methods were employed within each particular stage in the research, a phenomenon referred to as triangulation. Firstly, this chapter describes the design and recruitment of participants used in this programme of research. Next, the chapter is divided into two sections: quantitative and qualitative. The quantitative methods section describes the psychological measures that have been used frequently in research in the field of eating disorders, before justifying the use of the measures employed for the research described. The same is discussed for the psychological measures used to assess interpersonal functioning. The qualitative section of this chapter describes and evaluates the qualitative methods used within this research project, both in terms of the data collection and the analyses used.

## 2.2. Design

A cross sectional study design was used in all studies within this thesis, primarily due to the reduced costs and increased viability in comparison with longitudinal studies. In particular, as a relatively small number of patients complete therapy per year, not enough participants could be recruited for a longitudinal study of the therapy's efficacy.

## 2.3. Participants

### 2.3.1. Inclusion and exclusion criteria for all participants

In order to participate in this research, participants were required to fulfil certain criteria. All participants were required to be fluent English speakers. In studies 1, 2, 4, 5 and 7, participants needed to be healthy control women who had never experienced an eating disorder aged 17 and above or females with a diagnosis of bulimia nervosa (typical or atypical) aged 17 and above. In study 3, participants needed to be females with self identified eating disorders aged 17 and above or healthy control women. Participants in study 6 were required to be IPT therapists. Males were excluded as a result of difficulty recruiting enough males to make comparisons with females, and females under 16 were excluded as children are not treated at the service where clinical studies were conducted.

### 2.3.2. Recruitment procedure

Participants were recruited using the following methods:

#### 2.3.2.1. Clinical samples

Participants with eating disorders under the care of Leicester Eating Disorder Service were recruited for both qualitative and quantitative studies. In studies 5 and 6, which use the same sample, outpatients who were approaching the end of therapy were asked by their therapist whether they would be interested in hearing more about the interview study. Those that were willing met with the researcher and were given information about the study and were given 24 hours to consider participation. If they agreed to participate then a date for the interview was arranged with the researcher. Participants for quantitative studies were either recruited via post, or completed measures as part of their assessment. They were encouraged to contact the investigator if they needed assistance with completing measures.

#### 2.3.2.2. Subclinical sample

In study 4, a subclinical sample was employed. Participants with self diagnosed eating disorders were recruited from two eating disorder support services, both of which are voluntary organisations that provide support to people with self diagnosed eating disorders. These participants may have previously had a clinical diagnosis however at this point in time they were not under clinical care. It is considered by previous research that an EDE-Q score of between 3 and 4 is considered to be subclinical, while scores of over 4 are considered to be of clinical severity (e.g. Carter, Stewart & Fairburn, 2001; Pernick et al, 2006). The researcher attended a support group and informed the clients about the study, leaving them with an information sheet and the researcher's contact details. Participants contacted the researcher directly if they wished to take part.

#### 2.3.2.3. Nonclinical samples

Healthy control participants were recruited from Loughborough University School of Sports Exercise and Health Sciences. They were recruited in various ways according to the particular study. Ninety-two participants were approached by the researcher during a lecture on questionnaire design and 84 agreed and took part after the lecture had finished. Thirty participants were recruited through a research participation scheme where first year undergraduate students volunteer in exchange for course credits. Two hundred student participants were recruited via university email distribution lists and completed questionnaires online, while the remaining participants completed paper questionnaires. For study 7, therapists were recruited through Leicester Eating Disorder Service. All seven IPT therapists were invited to participate and all volunteered to do so.

2.3.3. Diagnosis and screening

In the nonclinical groups, participants were asked if they were currently or previously receiving treatment for an eating disorder. They also completed the Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994) to assess their eating disorder related attitudes and behaviours. It was intended that participants within this group that had high levels of eating disorder related attitudes and behaviours would be excluded from the non-clinical data. Only two participants were excluded in this way, which indicates that there were low levels of eating disorder psychopathology in these samples.

In clinical groups, the researcher ascertained participants' diagnosis through asking the patient to report it, and where there was uncertainty case notes written by the clinical team at Leicester Eating Disorder Service were accessed. Diagnosis had been made by an experienced eating disorder clinician at assessment (consultant psychiatrist or psychologist) using the Clinical Eating Disorders Rating Instrument (CEDRI; Palmer, Christie, Cordle, Davies & Kenrick, 1987). The CEDRI is a structured interview that measures eating related attitudes and behaviours. It has been shown to possess good reliability and validity (Palmer et al., 1987). A diagnosis was made following the interview, in accordance with DSM-IV criteria for AN, BN or EDNOS (American Psychological Association, 1994).

## 2.4. Quantitative Methodology

2.4.1. Psychological measures

A broad range of measures were used in this thesis. Below, descriptions of all the existing eating disorder measures are provided. The aim is to outline those measures that were considered for use and to justify the use of the tools employed in subsequent chapters. Subsequently, measures of depression and anxiety are given, followed by measures of interpersonal functioning.

2.4.1.1. Demographic questionnaire

Demographic and history of eating disorder details were obtained using a standard form. The participant's self-reported age, gender, height, weight was recorded. Participants were also asked if English was their first language and whether they were currently or had ever suffered from an eating disorder.

2.4.1.2. Body Mass Index (BMI)

Self reported Body Mass Index ($kg/m^2$) was calculated for all control samples involved in quantitative studies using self reported height and weight. It was not possible to obtain actual

height and weight as participants in quantitative studies did not meet with the researcher face to face. Patients' Body Mass Index was taken from their clinical notes and/or self reported by patients depending on the study.

2.4.1.3. Measures of eating disorder behaviours and cognitions

The following section outlines the most commonly used measures currently available to assess eating psychopathology. Firstly, the measure which is employed in this thesis, the EDE-Q, is described and evaluated. Next, the remaining available measures are described in chronological order, starting with the oldest measure first.

**The Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994)**

The EDE-Q is a 38 item self-report version of the interview based Eating Disorders Examination (Fairburn & Cooper, 1993). It has been recognised that clinical interviews are the most effective method for making the diagnosis of anorexia and bulimia nervosa (Crowther & Sherwood, 1997; Fairburn & Beglin, 1994; Wilson & Smith, 1989), however the use of the questionnaire version is a more cost effective means for both clinicians and researchers to screen individuals with bulimia nervosa and measure their core symptomatology.

The EDE-Q measures four aspects of eating disorders psychopathology-restraint, eating concern, body shape concern, and body weight concern. It also addresses key behavioural aspects of eating disorders, including reported frequency of objective binge eating and the use of vomiting as a means of weight control. It addresses the respondents current state, focusing on the last 4 weeks. High scores on the EDE-Q indicate more pathological eating attitudes and behaviours. Research has indicated that the EDE-Q is an effective screening tool for detecting eating disorders in various clinical populations (Black & Wilson, 1996; Fairburn & Beglin, 1994). A high level of agreement has been found between the EDE-Q and EDE assessment of the core attitudinal features of eating disorder psychopathology, both in community and clinical samples of young adult women (Binford, le Grange & Jellar, 2005; Black & Wilson, 1996; Carter, Aime & Mills, 2001; Fairburn & Beglin, 1994; Goldfein, Devlin & Kamenetz, 2005; Grilo, Masheb & Wilson, 2001; Kalarchian et al., 2000; Mond et al., 2004; Passi, Bryson & Lock, 2002; Sysko, Walsh & Fairburn, 2005; Wilfley et al., 1997, Wolk, Loeb & Walsh, 2005). However, it tends to overestimate the frequency of objective binge eating in some clinical groups (e.g., Fairburn & Beglin, 1994; Mond et al., 2008) and eating pathology in binge eating disorder (Grilo, Masheb & Wilson, 2001). Mond et al (2004) is the only study exploring predictive validity, and the researchers found that the EDE-Q had acceptable validity when used to detect community cases of clinically significant eating disorders. Results have indicated excellent internal

consistency and 2-week test-retest reliability for the four subscales of the EDE-Q (Luce & Crowther, 1999).

**The Eating Attitudes Test (EAT; Garner & Garfinkel, 1979)**

The EAT was originally developed to diagnose anorexia nervosa, however it is often used in nonclinical samples and has also been found to discriminate between bulimic and control samples (e.g. Gross, Rosen, Leitenberg & Willmuth, 1986). The original EAT has 40 questions, and answers are rated on a 6 point Likert scale, 1 (never) to 6 (always) with higher scores representing higher levels of eating disorder symptoms. According to Mintz & O'Halloran (2000), it has a high false-positive rate when used in the community, which they claim is most likely due to changes in diagnostic criteria over time. The EAT-26 is the most commonly used, abbreviated version of the EAT (Garner, Olmsted, Bohr & Garfinkel, 1982). While Williamson (1990) suggests that the EAT can be utilised as an index of severity of concerns among a range of eating disorders, these concerns are all cognitions directly associated with food, shape and weight. The internal reliability of the EAT-26 is high, and it displays criterion related validity by predicting group membership (Garner et al., 1982).

**Eating Disorders Inventory (EDI; Garner, Olmstead, Polivy, 1983)**

The EDI is a 64 item scale designed to assess the psychological traits common in eating disorders. The most commonly used version is the EDI-2 (Garner, 1991), which had 27 additional items and eleven subscales: drive for thinness; bulimia; body dissatisfaction; ineffectiveness; perfectionism; interpersonal distrust; interoceptive awareness; maturity fears; asceticism; impulse regulation; and social insecurity. Answers are rated on a 5 point Likert scale with higher scores indicating higher levels of eating disorder symptoms. The EDI is perhaps the most widely used self report measure of symptoms commonly associated with AN and BN. The EDI-2 has been used extensively in over 26 different countries (see Podar and Allik, 2008 for a summary table). It has been found to be adequately valid, with the bulimia scale correctly classifying 97% of all cases (Schoemaker, Verbraak, Breteler & Van der Staak, 1997), and the test–retest reliabilities for the EDI-2 subscales are relatively high, indicating a good and acceptable stability over time (Theil & Paul, 2006).

**Bulimia Test – Revised (BULIT-R, Smith & Thelen, 1984)**

The BULIT is a 32-item self report scale that was originally developed in 1984 (Smith & Thelen, 1984) to assess symptoms of bulimia for clinical work and research. The revised form (the BULIT-R; Thelen, Farmer, Wonderlich & Smith, 1991) was developed in response to changes in the diagnostic criteria for bulimia. The items are focused on overt behaviours and

attitudes concerning food, shape and weight as the BULIT-R is based on the DSM-III-R criteria for bulimia nervosa (Freeman & Barry, 1990). The BULIT-R has high internal reliability (Welsh, Thompson & Hall, 1993) been found to discriminate between those individuals with bulimia from those with anorexia and controls (Crowther & Sherwood, 1997).

**Bulimia Cognitive Distortions Scale (BCDS; Schulman, Kinder, Powers, Prange & Gleghorn, 1986)**

The BCDS is a 25 item measure of irrational beliefs and cognitive distortions associated with bulimia. According to Cooper (1997a), the scale has two reliable factors, one which addresses cognitions associated with automatic eating behaviour, and one that addresses cognitions associated with appearance. Questions are answered on a five-point Likert scale and higher scores represent more irrational beliefs. The BCDS has been shown to have a good internal consistency (Schulman et al., 1986), with results also indicating that the BCDS successfully discriminates between individuals with bulimia, restrained eaters and normal eaters (Bonfazi, Crowther & Mizes (2000).

**Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper & Fairburn, 1987)**

The BSQ aims to assess body shape concerns and measure feelings of 'fatness'. It has 34 items and is answered on a 6-point Likert scale. The BSQ has been found to distinguish between patients and controls, and also identifies patients who verbally admitted high levels of shape concern (Freeman & Barry, 1990). According to Cooper (1997b), it is useful as a measure of the level of psychopathology rather than to detect cases. Although the BSQ is a potentially useful measure for nonclinical populations, it does not assess any eating disorder related attitudes that are not related to body image. The BSQ has demonstrated good test-retest reliability, concurrent validity with other measures of body image, and criterion validity (Rosen, Jones, Ramirez & Waxman 1996).

**Mizes Anorectic Cognitions Questionnaire (MAC; Mizes & Klesges, 1989)**

The MAC assesses three domains of pathological eating behaviour. The most commonly used version is the Mizes Anorectic Cognitions-Revised (Mizes et al., 2000) which has 24 items. It has three subscales: self control and self-esteem, rigid weight regulation and fear of weight gain, and weight and approval from others. These subscales are designed to assess interrelated cognitive processes that are related to eating behaviour. Like the original version, the MAC-R is rated on a 5 point Likert scale, 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating more dysfunctional cognitions. Results indicate that the MAC successfully discriminates between individuals with bulimia, restrained eaters and healthy

eaters (Bonfazi, Crowther & Mizes, 2000). It has also been shown to be sensitive to cognitive changes associated with treatment (Crowther & Sherwood, 1997). Surprisingly, little research has examined the factor structure and psychometric properties of the revised scale in clinical and nonclinical populations. Reliability of the MAC-R is improved over that of the MAC according to Mizes et al., 2000). Two subscales of the MAC-R discriminated among diagnostic groups, indicating improved sensitivity of the revised scale, which did not discriminate.

**The Eating Disorder Belief Questionnaire (EDBQ, Cooper et al., 1997)**

The EDBQ (Cooper et al., 1997) was designed to assess underlying assumptions and beliefs associated with eating disorders. It has 32 items and answers are rated on a scale from 0 ('I do not usually believe this at all') to 100 ('I am usually completely convinced that this is true'). The EDBQ has four subscales: negative self-beliefs; weight and shape as a means to acceptance by others; weight and shape as a means to self-acceptance; and control over eating. The negative self-beliefs subscale appears to measure generic beliefs associated with depression while the other three subscales appear to measure beliefs specific to eating disorders (Rose, Cooper & Turner, 2006). The EDBQ possesses good psychometric properties (Cooper et al., 1997) and has been found to discriminate between clinical groups and controls (Bradford & Rutherford, 2001).

**Questionnaire for Eating Disorder Diagnoses (Q-EDD; Mintz, O'Halloran & Mulholland, 1997)**

The Q-EDD is a 50 item questionnaire designed to operationalise the eating disorder criteria of DSM-IV into a self report format. The questionnaire differentiates (a) between those with and without an eating disorder diagnosis, (b) among eating-disordered, symptomatic, and asymptomatic individuals, and (c) between those with anorexia and bulimia diagnoses. According to Mintz, O'Halloran & Mulholland (1997), the Q-EDD has a sensitivity of 97% and a specificity of 98% compared to clinical interview. However, while it had a low false positive rate in the nonclinical population, they also found that it failed to diagnose 22% of patients in a clinical population. Mintz, O'Halloran & Mulholland (1997) conclude that the Q-EDD is practical for screening but is not appropriate as a measure of subclinical eating concerns or as an outcome measure.

**Summary**

The preceding scales have been developed in order to measure the presence of eating disorder related attitudes and behaviours. Whilst they all have benefits, only the Eating Disorder Examination Questionnaire (EDE-Q) will be employed in this thesis as it is the only measure of

both eating disorder attitudes and behaviours. In addition, it has sound psychometric properties (Luce & Crowther, 1999; Mond et al., 2004), has been validated for use with both clinical and nonclinical populations (Binford, le Grange & Jellar, 2005; Black & Wilson, 1996; Carter, Aime & Mills, 2001; Fairburn & Beglin, 1994; Goldfein, Devlin & Kamenetz, 2005; Grilo, Masheb & Wilson, 2001; Kalarchian et al., 2000; Mond et al., 2004; Passi, Bryson & Lock, 2002; Sysko, Walsh & Fairburn, 2005; Wilfley et al., 1997, Wolk, Loeb & Walsh, 2005), and is used widely by eating disorder services including Leicester Eating Disorder Service as part of assessment, monitoring and evaluation. Therefore the research in this thesis will employ the EDE-Q to assess clinical levels of eating disorder related attitudes and behaviours, so that clinicians do not have to alter the measures they currently use as part of practice. The EDE-Q will also be used in subclinical and nonclinical groups in order to allow comparisons to be made.

#### 2.4.1.4. Measure of depression and anxiety

It is important to control for depression and anxiety as they often co-exist with eating disorders (Kaye et al., 2004; Swinbourne & Touyz, 2007; Wildes et al., 2007) and are also linked with poor interpersonal functioning (Montgomery, Haemmerlie & Edwards, 1991; Petty et al., 2004). Whilst there are many measures of depression and anxiety, more than can be described here, this research employs the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). The HADS is a 14 item self-report measure that contains 7 statements relating to anxiety and 7 statements relating to depression. Participants complete a questionnaire composed of statements relevant to either anxious (e.g. 'Worrying thoughts go through my mind') or depressive (e.g. 'I feel as if I'm slowed down') symptoms. Each item is answered on a four point (0–3) response category resulting in possible scores ranging from 0 to 21 for anxiety and 0 to 21 for depression. Zigmond & Snaith (1983) analysed data from the HADS in a clinical setting and concluded that a score of 0 to 7 for either subscale could be regarded as being in the normal range, a score of 8 to 10 indicates a borderline case and a score of 11 or above indicates probable presence of a mood disorder. The depression questions do not assess somatic aspects of depression such as insomnia and weight loss but instead focus on perceptions of the state of anhedonia – the loss of interest or pleasure in daily activities. Despite the term 'hospital' in the title, many studies have confirmed that the HADS is valid when used in community settings (see Bjelland et al., 2002 for a review). The HADS has shown good internal consistency with a mean Cronbach's alpha for HADS-A (anxiety) of .83 and for HADS-D (depression) a mean alpha of .82 (Bjelland et al., 2002).

The HADS was used in this research as it measures both anxiety and depression using a small number of items, therefore reducing the likelihood that participants will become fatigued or

miss questions. In addition, it is valid in both clinical and nonclinical settings (Bjelland et al., 2002). The questionnaire battery used within this thesis is large, and while controlling for depression and anxiety is important, the time it takes participants to complete must be minimised. The HADS was also employed as this measure was already used by the eating disorder service, and therefore clinical studies conducted here using this measure would fit with existing clinical practice.

2.4.1.5. Measures of interpersonal functioning

As outlined in section 1.3.2., there has to date been no consistently reported definition of interpersonal functioning. This section outlines the measures used in this research relating to interpersonal functioning. These measures were employed as they assess aspects of interpersonal functioning that have been identified as relevant to the eating disorders through the systematic review in this thesis. See chapter 2 for a diagrammatical representation of these aspects.

**The Inventory of Interpersonal Problems (Horowitz, Rosenberg, Baer, Ureno & Villasenor, 1988)**

The Inventory of Interpersonal Problems is a self-report measure which was used in studies 1 and 2 to assess a range of maladaptive interpersonal dispositions. The original version of the IIP consisted of twelve subscales derived from factor analysis. Seven of these followed the stem 'It is hard for me to' (e.g. 'It is hard for me to join in on groups' and five scales follow the stem 'I am too' (e.g. 'I am too aggressive towards other people'. Higher scores indicate a higher degree of interpersonal problems. There are currently sixteen versions of the questionnaire (see Hughes & Barkham, 2005 for a review). Two short versions have been used in this thesis, the IIP-SC and IIP-32. The IIP-SC was used in study 1 to assess interpersonal functioning. However in study 2 it was decided that the IIP-32 would be utilised as this version is used at Leicester Eating Disorder Service as part of the assessment and evaluation procedure, and therefore only this version could be used in nonclinical populations in order for comparisons to be made.

**The Inventory of Interpersonal Problems – Short Circumplex (IIP-SC; Soldz, Budman, Demby, & Merry, 1995)**

The IIP-SC is a 32 item short form of the Inventory of Interpersonal Problems that was utilised in study 1 of this thesis. It has eight subscales: domineering, vindictive, overly cold, socially avoidant, □on-assertive, exploitable, overly nurturant, and intrusive. These subscales correspond to the eight octants of the interpersonal circumplex proposed by Horowitz & Vitkus

(1986), and can be summed to measure interpersonal problems in relation to hostility-dominance (Vindictive, Domineering & Intrusive subscales) and friendliness-submission (overly nurturant, exploitable & □on-assertive subscales). Answers are rated on a six-point likert scale (0= not at all, 5 = extremely). Table 2.1 provides a description of each scale and sample items (taken from Alden & Phillips, 1990). This short form was found to have an internal consistency for the scales ranges from .68 to .84 and correlates highly with longer versions of the IIP (Soldz, Budman, Demby, & Merry, 1995).

Table 2.1. Inventory of Interpersonal Problems - Short Circumplex scales

| Scale | Sample item |
|---|---|
| *Domineering.* High scorers report problems related to controlling, manipulating, expressing aggression toward, and trying to change others. | 'I try to control other people too much.' |
| *Vindictive.* High scorers report problems related to distrust and suspicion of others, and an inability to care about others' needs and happiness. | 'I want to get revenge against people too much.' |
| *Cold.* High scorers report an inability to express affection toward and to feel love for another person, difficulty making long-term commitments to others, and an inability to be generous to, get along with, and forgive others. | 'It is hard for me to get along with other people.' |
| *Socially Avoidant.* High scorers feel anxious and embarrassed in the presence of others, and have difficulty initiating social interactions, expressing feelings, and socializing with others. | 'It is hard for me to ask other people to get socially together with me.' |
| *Non-assertive.* High scorers report difficulty making their needs known to others, discomfort in authoritative roles, and an inability to be firm with and assertive toward others. | 'It is hard for me to tell a person to stop bothering me.' |
| *Exploitable.* High scorers find it difficult to feel anger and to express anger for fear of offending others. They describe themselves as gullible and readily taken advantage of by others. | 'I let other people take advantage of me too much.' |
| *Overly-Nurturant.* High scorers report that they try too hard to please others and are too generous, trusting, caring, and permissive in dealing with others. | 'I put others needs before my own too much.' |
| *Intrusive.* High scorers are inappropriately self-disclosive, overly intrusive, and attention-seeking, and find it difficult to spend time alone. | 'It is hard for me to stay out of other people's business.' |

**The Inventory of Interpersonal Problems – 32 (IIP-32; Barkham, Hardy & Startup, 1996)**

The IIP-32 is also a 32 item short form of the Inventory of Interpersonal Problems that was used in study 2 of this thesis. It has eight subscales: *Hard to be assertive, hard to be sociable,*

*hard to be supportive, hard to be caring, too dependent, too aggressive, too involved* and *too open*. Answers are rated on a five –point likert scale (0 = not at all, 4 = extremely). The IIP-32 has been shown to possess high internal consistency, reliability, and validity (Barkham, Hardy & Startup, 1996). Table 2.2 provides a description of each scale and sample questions.

Table 2.2. Inventory of Interpersonal Problems – 32

| Scale | Sample item |
|---|---|
| *Hard to be assertive.* High scorers report difficulty making their needs known to others, discomfort in authoritative roles, and an inability to be firm with and assertive toward others. | 'It is hard for me to be assertive with another person'. |
| *Hard to be sociable.* High scorers feel anxious and embarrassed in the presence of others, and have difficulty initiating social interactions, expressing feelings, and socializing with others. | 'It is hard for me to make friends'. |
| *Hard to be supportive.* High scorers report an inability to care about others needs and happiness, and always put themselves first. | 'It is hard for me to be supportive of another persons goals in life'. |
| *Too caring.* High scorers find it difficult to put their own needs before others and report being too generous, caring and permissive when dealing with other people. | 'It is hard for me to attend to my own welfare when someone else is needy'. |
| *Too dependent.* High scorers report feeling that they rely on other people's thoughts and opinions, and compare themselves to others, often becoming jealous. | 'I am too dependent on other people'. |
| *Too aggressive.* High scorers report problems with being hostile towards others, fighting and losing their temper too easily. | 'I fight with other people too much'. |
| *Hard to be involved.* High scorers difficulty in becoming close to others and maintaining long term commitments. | 'It is hard for me to be involved with another person without feeling trapped'. |
| *Too open.* High scorers report difficulty in keeping their own issues private, and tell personal things to other people too frequently. | 'I tell personal things to other people too much'. |

**The Attitudes towards Emotional Expression Scale (AEE; Joseph, Williams, Irwing, & Cammock, 1994)**

The AEE is a 20 item self-report measure that was used in studies 1 and 4 of this thesis. The AEE was developed to test the hypothesis that negative attitudes towards expressing emotions can result in strong avoidant tendencies which are maladaptive as they disrupt an individual's emotional expression. The AEE measures four intercorrelated underlying factors: the belief that the expression of emotions is a sign of weakness (weakness); the belief that emotions should be kept under control (control); the belief that other people will reject expressed emotions

(social); and the tendency to keep emotions to oneself (non-expression). Answers are rated on a 5-point likert scale (1= strongly disagree, 5 = strongly agree). Higher scores indicate a more negative attitude towards the expression of emotions. The AEE is considered reliable and valid and has been used in both clinical (Meyer, Leung, Barry & De Feo, 2010) and non-clinical groups (Laghai & Joseph, 2000).

**The Brief Fear of Negative Evaluation Scale- Revised (BFNE-II; Carleton, McCreary, Norton & Asmundson, 2006)**

The BFNE-II is a 12 item self-report measure that was used in study 1 of this thesis. It assesses expectation and fear of negative evaluation from others. Answers are rated on a five-point likert scale (1= not at all like me, 5 = extremely like me). Higher scores represent greater fear of negative evaluation from others. The original BFNE (Leary, 1983) contained negatively worded items however these were reworded in the revised version as it was suggested that this made the questions more straightforward to answer and improved the validity of the measure (Taylor, 1993; Rodebaugh et al., 2004; Weeks et al., 2005). There has been some debate about whether the BFNE has a unitary or two factor structure, however most recent research has concluded that a unitary structure is most appropriate (Carleton, Collimore & Asmundson, 2007). Higher scores mean an individual has a greater fear of negative evaluation. The BFNE has demonstrated high internal consistency (between .90 and .91) and 4-week test–retest reliability (r5.75) in undergraduate samples (Leary, 1983; Miller, 1995).

**The Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999)**

The INCOM is an 11-item self-report measure used in study 1 of this thesis. It is a measure of the tendency for an individual to compare themselves to others. Answers are rated on a five-point likert scale, with higher scores representing a greater tendency to make social comparisons. The INCOM has two subscales, one labelled ‘ability’, consisting of six items concerning comparison regarding performance, and one labelled ‘opinions’, consisting of five items concerning comparison regarding others’ thoughts and opinions. The INCOM has been found to have good psychometric properties, including good internal reliability and construct validity (e.g., Gibbons & Buunk, 1999).

**The Means End Problem Solving Procedure (MEPS; Marx, Williams, & Claridge, 1992)**

The MEPS was used in study 3 of this thesis. It was originally developed to assess means-end cognition: the ability to identify the necessary steps to achieve a particular goal (Platt & Spivack, 1975). It is employed in study 4 of this thesis. Participants are presented with a

problem scenario and are asked to 'describe the best strategy to overcome the problem.' They are provided with the beginning and the ending of the story and are asked to provide the middle section, thus linking the beginning to the end. The scenarios are provided both verbally by the researcher and the participant is also given a card with the story written on to follow. Participants are asked to describe the ideal strategy for overcoming the given problem situation and are asked to describe it in as much detail as possible, so that an outsider could interpret and follow their plan of action (Marx et al.,1992). Participants are given three minutes for each story, and the stories are presented in a randomised order. Participants' responses are tape recorded and then transcribed verbatim. They are scored subjectively on the number of relevant means (each potentially effective step to achieve the goal), effectiveness (rated on a 1-7 scale) and the specificity of the strategy (rated on a 1-7 scale). As answers are rated subjectively it is important to have a second rater and to calculate inter-rater reliability. According to D'Zurilla & Goldfried (1971), a strategy is considered effective if it maximises positive and minimised negative short and long-term consequences. In the present study, a shortened version of the MEPS was used (Marx, Williams, & Claridge, 1992). Four out of the ten scenarios were chosen as they addressed interpersonal issues: an argument with the partner (scenario 2 of the original MEPS), making friends in a new neighbourhood (scenario 4), friends avoiding you (scenario 8) and difficulties with the boss (scenario 10). The MEPS is considered to have adequate psychometric properties (Platt & Spivack, 1975).

### 2.4.2. General procedure

A description of the general procedures used in the quantitative studies of this thesis is provided below. Both clinical and nonclinical participants were informed of the study's aims and procedures. They were also informed that their participation in the study was voluntary as well as confidential and anonymous. They were aware that they could withdraw at any time without giving a reason, and that withdrawal would not affect the standard of care they received from the service.

#### 2.4.2.1. Clinical samples

Before consenting to the study participants were given an explanation of the study's aims and procedures. Clinical participants completed psychological measures at home and brought them into the service after reading an information sheet and signing a consent form.

2.4.2.2. Subclinical sample

In study 3, individuals with self identified eating disorders met with the researcher individually in a private room, either at an eating disorder support service or at the University, as the study involved audio-recording of data.

2.4.2.3. Nonclinical samples

In study 1, students completed the measures simultaneously in a lecture theatre and were supervised by the researcher. This session lasted around 30 minutes. In studies 2 and 4, participants completed measures online. In study 3 participants met with the researcher individually in a private room at Loughborough University, as the study involved audio-recording of data.

2.4.3. General data analysis

Rigorous statistical procedures were applied following advice from a statistician, Dr Terry Dovey, who is a Lecturer in research methods in the School of Sport, Exercise, and Health Sciences at Loughborough University. Dr Dovey was consulted during analysis stages of quantitative studies on an ad-hoc basis. As each study has a directional hypothesis, one-tailed tests were used throughout. It is acknowledged that one-tailed tests need to be used with caution as they exclude the possibility of finding results in the opposite direction to the hypothesis (Field, 2005). However, one-tailed tests were considered appropriate in this research due to the large amount of previous research indicating that individuals with higher levels of eating disordered attitudes and behaviours experience more maladaptive social functioning than those with lower levels (see chapter 1 for a review). All statistical analyses were conducted using the PASW Statistics 18.

The quantitative studies in this thesis employ correlations, regressions, Mann Whitney U tests, and mediation analysis. The following procedures were conducted within the quantitative studies of this thesis. In order to determine whether parametric or non-parametric tests were appropriate, exploratory analyses were conducted. Kolmogorov-Smirnov tests were utilised and histograms for each variable were studied to test the normality of the data. A series of correlational analyses were used to examine associations between eating disorder related attitudes and behaviours where present, aspects of interpersonal functioning, and demographic data. Explorative Spearmans correlation coefficient was used for normally distributed data. A series of regression analyses were used to examine mediating effects (Baron and Kenny, 1986, Kenny et al., 1998). Whilst all data was non-normally distributed, mediation was considered appropriate as inspections of the residuals indicated normal distributions, homoscedasticity and

no multicolleniarity (Bowerman & O'Connell, 1990; Field, 2005; Myers, 1990). Baron and Kenny's (1986) method of mediation was used in keeping with recent studies in the field of eating disorders which have used and recommended this method (e.g. Blissett et al., 2005; Gagnon-Girouard, 2010; Meyer & Gillings, 2003; Stice, Presnell, Gau & Shaw, 2007; Watson, Raykos, Street, Fursland & Nathan, 2011). A Sobel test was used to assess the significance of a partial mediation (Sobel, 1982). In order to examine differences between a) clinical and nonclinical groups, and b) subclinical and nonclinical groups, non-parametric Mann-Whitney U tests were employed.

It must also be noted here that the p values for the different studies in this thesis varied between studies. The rationale for this variation was the varying number of tests used in each study. Studies with multiple tests had an increased risk of Type I error if p = .05. Therefore, among the empirical studies with a large number of statistical tests, a p value of 0.01 was utilised. More conservative methods such as Bonferroni correction or Holmes sequential were considered, however these corrections are considered to increase the probability of producing false negative results (Perneger, 1998). Recent existing research in the field of eating disorders has adopted a p value of 0.01 without a correction in a similar fashion (Taranis & Meyer, 2010; Uher et al., 2004).

## 2.5. Qualitative methodology

Qualitative methods were employed under the direction of an experienced qualitative researcher, Dr Hilary McDermott. This thesis employed a qualitative approach to explore patients' experiences and therapists' perceptions of interpersonal psychotherapy. This section explains why this approach was used, and describes the procedure and method of analysis employed by the researcher.

### 2.5.1. Justification of research method

It is considered that qualitative methods will be useful in developing understanding of both interpersonal functioning in the eating disorders and its treatment. The inclusion of qualitative methods in the study of eating disorder symptomatology and management is becoming increasingly popular. In terms of symptomatology, qualitative data has given insights into the perceived pros and cons of bulimia nervosa (Serpell & Treasure, 2002). It could be argued that such rich data concerning patients' attitudes towards their disorder could not be accessed through quantitative means. According to Magnusson, Finnerty & Pope (2005) in combining different methods, the weakness of one method are addressed through the strength of another. Using both quantitative and qualitative methods to explore interpersonal functioning in the eating disorders will produce 'between-method triangulation' (Denzin, 1989) which allows the

weakness in one method to be compensated for by the strengths of another. Kelle (2001) identifies three reasons for the application of between-method triangulation. It is employed to mutually validate research findings, to produce a more complete picture of the phenomenon studied, and finally, investigation from different angles is considered as a necessary prerequisite for explanation of the phenomenon. Whilst qualitative analysis brings inevitable subjectivity to the data analysis, this triangulation of the data strives to reduce discrepancies between findings. The research within this thesis combines these methods to address the aforementioned research questions.

There is extensive debate between opposing research paradigms within the discipline of psychology; the quantitative paradigm and the qualitative paradigm. While the positivist paradigm of quantitative methods dominates psychology research practice (Sale, Lohffeld & Brazil, 2002), the prevalence of qualitative research has grown significantly in the last few decades and it has been acknowledged that such research addresses phenomena that often cannot be measured by quantitative means. While some researchers believe that it is inappropriate to combine qualitative and quantitative methodologies due to the differences in their underlying philosophical assumptions (Lincoln & Guba, 1985), it is also argued that despite this, qualitative and quantitative methods can be complimentary when used together (Sale et al., 2002).

There are several studies that have assessed eating disordered patients views regarding treatment using qualitative methods, including cognitive-behavioural group therapy (Laberg, Törnkvist, & Andersson, 2001); cognitive training (Whitney, Easter, & Tchanturia, 2008); family therapy (Joyce et al., 2008) general outpatient services (Reid, Burr, Williams & Hammersley, 2008) and inpatient treatment (Offord, Turner & Cooper, 2006). It is considered that a qualitative approach will be beneficial in exploring patients' and therapists' views on treatment outcome. Rosenvinge & Klusmeier (2000) argued that patients' views were largely ignored in early eating disorder literature as they were considered to be unreliable due to the symptom denial and failure to recognise the need for treatment in such disorders. However, in recent years qualitative methods of assessing service users' perspectives of their disorders and treatment are becoming increasingly employed by researchers. There has been an acknowledgement of the valuable contribution of qualitative studies to therapists understanding of the patients' illness and their recovery. In addition, studies are beginning to ask therapists about their perceptions of treatment, employing both quantitative and qualitative methods, for example in treatment of post traumatic stress disorder (e.g. Najavits, 2002), borderline personality disorder (e.g. Perseius,

Ojehagan, Ekdahl, Asberg & Samuelsson, 2003) and childhood obesity (e.g. Walker, Strong, Atchinson, Saunders & Albott, 2007).

Although qualitative studies cannot draw conclusions about the effectiveness of therapy, they can explore patients' and therapists' views in more detail than quantitative methods, and provide insights into areas that require further investigation in future quantitative studies. The aim of the qualitative studies in this thesis is not to prove or disprove a hypothesis, but to generate phenomenological data from which an understanding might be developed.

### 2.5.2. Qualitative Data Collection

This thesis employs interviews to explore patients' views of their symptoms and their experience of therapy. In addition, focus groups were employed in order to explore therapists' perceptions of patients' experiences. The sections following describe each method:

#### 2.5.2.1. Research interviews (patients)

Semi-structured interviews are the most commonly employed method of data collection within qualitative psychology (Willig, 2001). They are conducted on the basis of a loose structure which consists of open ended questions defining the area to be explored. These questions are designed to function as triggers that encourage the participant to talk about the topic. While these questions are asked initially, the interviewer is able to ask the interviewee to expand on points they may raise and explore various aspects in further detail (Britten, 1995). The aim of such interviews is to explore the topic of discussion in as much detail as possible, and to discover new areas that were not previously anticipated by the researcher. The interviewer should work hard so as not to impose their own opinions and expectations on the interviewee, but instead discover the interviewees own framework of meaning (Smith, 1995).

According to Willig (2001), interviews are the most popular method of qualitative data collection because the resulting data can be analysed in various ways, meaning that the method is compatible with several types of data analysis such as discourse analysis, grounded theory and interpretative phenomenology. In studies 5 and 6 of this thesis, thematic analysis will be applied to the interview data.

In the current research, qualitative interviews were employed to address the following broad research questions:

- What are patients' experiences of their eating disorder and interpersonal functioning before treatment? (Chapter 7)

- How are eating disorder symptoms and poor interpersonal functioning targeted by IPT-BN? (Chapter 8)
- What aspects of the ED/interpersonal functioning improve during therapy and which do not? Why? (Chapter 8)
- What are the factors associated with good and poor outcome of IPT-BN? (Chapter 8)

Interviews took place in a private therapy room at Leicester Eating Disorder Service. They lasted between 45 and 60 minutes and were audiotaped. Open ended semi-structured questions were used in a flexible way, some being omitted when considered inappropriate, and some elaborated on. Whilst avoiding closed or leading questions the interviewer did adopt a position of 'talking back' to the interviewee (Griffin, 1990). A two-way dialogue was developed through the interview questions and the participant's responses.

2.5.2.2. Focus groups (therapists)

Focus groups were employed in order to assess therapist's views on the above research questions (chapter 8). Focus groups were employed here instead of interviews as therapists views were considered to be less sensitive than patient views, and it was considered that the group discussion facilitated in focus groups would yield rich data. Focus groups were conducted in a private therapy room at Leicester Eating Disorder Service.

Focus groups, like interviews, are a widely used method in qualitative research in social sciences (Wilkinson, 2003). Krueger and Casey (2000) define a focus group as 'a carefully planned series of discussions designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment' (p. 5). Participants are allowed to say whatever they would like as questions are open ended, and therefore focus groups are considered to be naturalistic (Krueger and Casey, 2000) The focus group is a group interview however, and so the social nature of the methodology shapes the resulting data. Consequently, focus group methodology is not a reliable technique for determining an individual's authentic point of view as social norms often present a barrier (Grudens-Schuck & Larson, 2004). As a result, they elicit combined local perspectives more than they do individual perspectives.

2.5.3. Data analysis

2.5.3.1. Thematic analysis

Within the qualitative paradigm, this research employed thematic analysis techniques to analyse data. There are many ways to analyse participants talk about their experiences, and thematic analysis is one such method. According to Braun and Clarke (2006), thematic analysis

is a ‘method for identifying, analysing and reporting patterns (themes) within qualitative data’. Thematic analysis focuses on identifying consistencies in experiences and behaviours. According to Taylor and Bogdan (1989), themes are defined as units derived from patterns such as ‘conversation topics, vocabulary, recurring activities, meanings, feelings, or folk sayings and proverbs’.

First, patterns of experiences which emerge from direct quotes or paraphrasing ideas within the data are listed (Aronson, 1994). In this thesis, emerging theme titles were listed and clustered to produce a table of super-ordinate and subordinate themes along with sample quotes. In addition, the researcher also looked for talk that contradicted existing themes and analysis was modified to take account of this. Through extensive studying of the emerging themes, a comprehensive picture of the participants collective experience is formed (Aronson, 1994). In the current research, this process was carried out in a responsive way, with the researcher frequently referring back to the original transcripts to ensure that themes were grounded in the data. While the participants’ statements mean little in isolation, studying how their ideas fit together creates meaning. The final step of the analysis involves building a justification for choosing the themes that emerged from the data, which is achieved by revisiting the research literature. Through this process, the researcher develops a story line and the previous literature becomes interwoven with the findings. The result is a deeper understanding of the experiences, motivations, behaviours and attitudes of the interviewees.

Thematic analysis has been chosen for this research as it does not require the detailed theoretical and practical knowledge of other qualitative approaches such as discourse analysis or grounded theory. As a result of this, thematic analysis is considered a more accessible form of analysis for the researcher who is new to the qualitative paradigm (Aronson, 1994). In addition, in contrast to other qualitative methods such as grounded theory and IPA, thematic analysis is not bound to a specific theoretical framework. It can be both a ‘realist’ method (which reports the experiences, meanings and the reality of participants) or a ‘constructionist’ method (which studies the way in which these experiences and meanings are constructed by the discourse that operates in society). Thematic analysis can also be ‘contextualist’ method, which acknowledges both the meanings of the participants’ experiences and their wider social context. According to Braun and Clarke (2006) ‘It is the first qualitative method of analysis that researchers should learn, as it provides core skills that will be useful for conducting many other forms of qualitative analysis.’ As the researcher is new to the qualitative approach, thematic analysis was considered the most appropriate method for the above reasons. Furthermore, thematic analysis is a flexible approach that can be used across different types of data (Braun &

Clarke, 2006; Rabiee, 2004; Wilkinson, 2004). Braun and Clarke (2006) state that thematic analysis 'involves the searching across a data set - be that a number of interviews or focus groups, or a range of texts - to find repeated patterns of meaning.' This means that thematic analysis was appropriate for both interview and focus group data analysis within this thesis.

#### 2.5.3.2. Quality Checks

In quantitative research, validity and reliability are key criteria for assessing the quality of research. However, most qualitative researchers do not use these criteria in their research as they assume that the researcher is separate from the research and can act in an objective, impartial way that does not affect measurement. In qualitative research, the researcher is very much a part of the research process, and their views on the results are subjective. The use of criteria for assessing the quality of qualitative research is controversial (see Willig, 2001 for a discussion), and there is no consensus on which to use. However, the following are two commonly used quality checks which have been employed in this thesis.

1.) Independent scrutiny of analysis

One strategy for increasing the reliability of the analyses is independent scrutiny of the analysis. Two of the individual transcripts were analysed by an independent qualitative researcher who was selected on the basis of knowledge of the methodology. The 'expert' researcher coded them and these codes were compared and contrasted with the original codes and themes. It is important to note that this approach is not about asking someone else to confirm that codes are 'correct', but it can help researchers reflect on the process and help them consider codes and themes that might have been overlooked or interpreted in different ways (Elliot, Fischer, & Rennie, 1999).

2.) Audit trail

An audit-trial of the analysis was conducted, which records the analysis from the original coding to the final clustering of themes. This is a documentary record of the steps that were undertaken and the decisions that were made in moving from the raw transcripts to final interpretation of the data. While there is not space for audit trails in most reports or journal articles, it is still considered good practice, and prevents the presentation of final analysis as if the themes simply emerged from the data. The researcher also kept a research diary

throughout the analysis process in order to record the development of ideas and maintain a 'reflexive stance' (Silverman, 2000). See appendix J for the audit trail of studies 5 and 6.

### 2.6. Ethical considerations

The procedures of this research which involved clinical participants were approved by Nottingham Research Ethics Committee 1. Those procedures involving nonclinical and subclinical participants were approved by Loughborough University Research Ethics Committee. Each participant gave informed written consent to participate after being fully informed about the studies aims and given time to consider participation, and they were aware that they could withdraw at any time. When data was collected at assessment, patients had consented for their data to be used for research purposes. Participants remained anonymous throughout the research procedure, and all data was kept on a password protected computer or in a locked filing cabinet in accordance with the Data Protection Act 1998. Participants were allowed to withdraw from the research at any time without giving a reason and withdrawal did not affect their clinical care or treatment within the university. Those who travelled to Leicester Eating Disorder Service to take part in interviews were offered travel reimbursement.

# Chapter 3

# Interpersonal functioning and eating disorder related attitudes in a nonclinical population: A pilot study

## Study 1

# 3. Interpersonal functioning and eating disorder related attitudes in a nonclinical population

**Introduction to the chapter**

This chapter describes the first quantitative study of this thesis, which aims to examine the interpersonal functioning of healthy young women, by exploring the associations between eating disorder related attitudes and behaviours and interpersonal functioning. For this thesis, the present study is the first step in investigating whether poor interpersonal functioning in various domains is related to ED psychopathology. The results of this study will determine whether further exploration of the interpersonal functioning of individuals with ED is necessary.

As mentioned in chapter 1, interpersonal psychotherapy (IPT) is becoming an increasingly accepted form of treatment for the eating disorders. This therapy assumes that ED symptoms are related to interpersonal functioning and that treatment focuses on improving this functioning. A systematic review of the literature (see chapter 1) has revealed that there is a wealth of existing research that explores associations between ED attitudes and behaviours and interpersonal functioning. Such research has focused on interpersonal problems as defined by the inventory of interpersonal problems (e.g. Hartmann, Zeeck & Barrett, 2010), negative attitude towards emotional expression (e.g. Meyer, Leung, Barry & De Feo, 2010), fear of negative evaluation from others (e.g. Gilbert & Meyer, 2003), and high levels of interpersonal comparison (e.g. Gilbert & Meyer, 2003). However previous research has focused on only one aspect of interpersonal functioning at a time, and uses a wide variety of participants and research methods. The systematic review has also indicated that many studies did not take depression and anxiety into account when investigating the interpersonal functioning of those with ED related attitudes and behaviours.

## Study 1: Interpersonal functioning and eating disorder related attitudes in a nonclinical population: A pilot study


### Abstract

**Background:** There is a wealth of existing research that explores associations between eating disorder related attitudes and behaviours and maladaptive interpersonal functioning. The aim of this study is to replicate existing research and extend it to control for depression and anxiety.

**Method:** Eighty-four undergraduate women completed measures of interpersonal functioning and measures of eating disorder related attitudes and behaviours, depression and anxiety.

**Results**: Eating disorder related attitudes were positively associated with generalised interpersonal problems, having a negative attitude towards emotional expression, a fear of negative evaluation from others and an individual's tendency to compare themselves to others. These associations remained significant after controlling for depression and anxiety.

**Discussion:** Results replicate previous findings and support links between eating disorder related attitudes and maladaptive interpersonal functioning, controlling for depression and anxiety.

## Introduction

Eating disorders are known to cause and be maintained by significant problems in psychosocial functioning (e.g. Fairburn & Harrison, 2003). Many individuals with eating disorders experience interpersonal problems, which encompass a wide range of issues concerning the individual's relationships and social interactions in domains such as romantic and family relationships, friendships and interactions with colleagues. For example, previous research has found that a lack of assertiveness (e.g. Troop, Allan, Treasure & Katzman, 2003), poor social skills (e.g. Suzuki, Takeda, Shirakura & Yoshino, 2003), high levels of social anxiety and comparison (e.g. Gilbert & Meyer, 2003; Morrison et al., 2003) and fear of negative evaluation (Gilbert & Meyer, 2005a; 2005b) have been associated with eating disorders. According to Hartmann, Zeeck and Barrett (2010), interpersonal problems such as these have been suggested to be a ''core'' component of eating disorders as firstly they are thought to serve as risk factors in the development of the disorder, secondly they maintain the disorder and finally they are more likely to develop further as a result of the eating disorder.

Further highlighting the role of interpersonal problems in eating disorders, treatment approaches that focus on maladaptive interactional patterns have proven to be effective in reducing symptoms of BN (Fairburn, 1991) and theoretically for reducing symptoms for AN (McIntosh, Bulik, Mckenzie, Luty, & Jordan, 2000), although this has not yet been backed up by empirical evidence. Since its conception, IPT has been recognised by NICE guidelines as one of the few effective psychotherapies for bulimia (NICE, 2004), and has been compared to cognitive behavioural therapy, the current treatment of choice with equally positive results in both individual and group settings (Fairburn, 1997; Fairburn, Jones, Peveler, Hope, & O'Connor, 1993; Fairburn et al.,1991; Roth & Ross, 1988; Wilfley et al., 1993; Wilfley et al., 2002). The rationale of IPT for BN suggests that those who exhibit eating disorder related attitudes and behaviours do so in response to interpersonal disturbances such as deficits in social problem solving and role conflicts (Fairburn, 1993; 1997). In improving the individual's ability to utilise their social support networks and manage these interpersonal deficits, IPT aims to reduce bulimic attitudes and behaviours (Fairburn, 1993; 1997).

Despite there being no existing definition, for the purpose of this study, maladaptive interpersonal functioning is defined as internal psychological processes which in turn have a negative effect on interpersonal interactions and relationships. According to Sullivan (1968) the term 'interpersonal' encompasses not only the patterns of interaction between the individual and significant others, but also the process by which these interactions are internalised and form

part of the self image. This study is concerned specifically with exploring such maladaptive interpersonal functioning as aspects of the eating, weight and shape concerned individual's personality, and does not investigate the consequences of such aspects on social adjustment or satisfaction with relationships. Although there is also research that studies social adjustment and eating disorders by rating the satisfaction of relationships and the amount of conflict (e.g. Evans & Wertheim, 1998), the present study is only concerned with interpersonal problems on a more intrapsychic level – as internal psychological processes of the individual.

While a wealth of research has investigated the interpersonal functioning of those with eating disorders, these studies have often not controlled for depression and anxiety. As previous research has linked depression and anxiety extensively to poor interpersonal functioning (Montgomery, Haemmerlie & Edwards, 1991; Petty et al., 2004), as well as to eating disorder psychopathology (Kaye et al., 2004; Swinbourne & Touyz, 2007; Wildes et al., 2007) it is imperative that they are controlled for, to establish that the relationship between interpersonal functioning and eating disorders is not simply a function of comorbid depression and anxiety. The present study aims to explore the associations between interpersonal functioning and eating related attitudes and behaviours, and therefore replicates previous research conducted in this area that has used a variety of psychological measures, while controlling for depression and anxiety. It is hypothesised that maladaptive eating related attitudes and behaviours will be associated with interpersonal problems, a negative attitude towards emotional expression, fear of negative evaluation, and high levels of interpersonal comparison, and that these associations will remain after controlling for depression and anxiety. As this study is a pilot study, it employs a nonclinical population to assess these relationships to establish whether further investigation in clinical groups is warranted.

**Method**

Participants

The participants were 84 women, with a mean age of 20.36 years (SD 1.85, range 19-30) and a mean self reported BMI of 22.4 (SD 3.86, range 17.22–37.58). They were undergraduates completing a statistics module at Loughborough University who took part in the study as part of a lecture on how to conduct questionnaire studies.

Measures

1.) The Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994)

The EDE-Q is a 38 item self-report version of the interview based Eating Disorders Examination. It measures four aspects of eating disorders psychopathology-restraint, eating

concern, body shape concern, and body weight concern. It also addresses key behavioural aspects of eating disorders, including reported frequency of objective binge eating and the use of vomiting as a means of weight control. It addresses the respondent's current state, focusing on the last 4 weeks. High scores on the EDE-Q indicate more pathological eating attitudes and behaviours. Research has indicated that the EDE-Q is both reliable and valid in nonclinical populations (Luce, Crowther & Pole, 2008). In the current study, the Cronbach's alpha values were (restraint = .84, weight concern = .84, eating concern = .75, shape concern = .91), demonstrating good internal consistency.

2.) Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983)

The HADS is a 14 item self-report measure that contains 7 statements relating to anxiety and 7 statements relating to depression. Each item is answered on a four point (0–3) response category resulting in possible scores ranging from 0 to 21 for anxiety and 0 to 21 for depression. Zigmond & Snaith (1983) analysed data from the HADS in a clinical setting and concluded that a score of 0 to 7 for either subscale could be regarded as being in the normal range, a score of 8 to 10 indicates a borderline case and a score of 11 or above indicates probable presence of the mood disorder. The depression questions do not assess somatic aspects of depression such as insomnia and weight loss but instead focus on perceptions of the state of anhedonia. Despite the term 'hospital' in the title, many studies have confirmed that the HADS is valid when used in community settings (see Bjelland, Dahl, Haug & Neckelmann, 2002 for a review). In the current study, the anxiety subscale had a Cronbach's alpha of .83 and the depression subscale had a Cronbach's alpha of .65, indicating good internal consistency.

3.) The Inventory of Interpersonal Problems, short version (IIP-SC; Soldz, Budman, Demby, & Merry, 1995)

The IIP-SC is a 32 item short form of the Inventory of Interpersonal Problems, a self-report measure designed to assess a range of maladaptive interpersonal dispositions. It has eight subscales: Domineering, Vindictive, Overly Cold, Socially Avoidant, Non-assertive, Exploitable, Overly Nurturant, and Intrusive. These subscales correspond to the eight octants of the interpersonal circumplex proposed by Horowitz & Vitkus (1986), and can be summed to measure interpersonal problems in relation to hostility-dominance (Vindictive, Domineering & Intrusive subscales) and friendliness-submission (Overly Nurturant, Exploitable & Non-assertive subscales). Answers are rated on a five-point likert scale (1= not at all, 5 = extremely). The short form was found to have an internal consistency for the scales ranges from .68 to .84 and correlates highly with longer versions of the IIP. Higher scores indicate a higher degree of interpersonal problems. The Cronbach's alpha values found in the present study were .69

(domineering), .66 (vindictive), .78 (cold), .87 (socially avoidant), .82 (non-assertive), .69 (exploitable), .75 (overly nurturant), and .65 (intrusive).

4.) The Attitudes towards Emotional Expression Scale (AEE; Joseph, Williams, Irwing, & Cammock, 1994)

The AEE is a 20 item self-report measure that was developed to test the hypothesis that negative attitudes towards expressing emotions can result in strong avoidant tendencies which are maladaptive as they disrupt an individual's emotional expression. The AEE measures four intercorrelated underlying factors: the belief that the expression of emotions is a sign of weakness (weakness); the belief that emotions should be kept under control (control); the belief that other people will reject expressed emotions (social); and the tendency to keep emotions to oneself (non-expression). Answers are rated on a 5-point likert scale (1= strongly disagree, 5 = strongly agree). Higher scores indicate a more negative attitude towards the expression of emotions. The AEE is considered reliable and valid and has been used in both clinical (Meyer, Leung, Barry & De Feo, 2010) and non-clinical groups (Laghai & Joseph, 2000). In the current study, the subscales of the AEE had Cronbach's alpha values of .80 (sign of weakness), .77 (behavioural style), .72 (control), and .65 (social rejection).

5.) The Brief Fear of Negative Evaluation Scale- Revised (BFNE-II; Carleton, McCreary, Norton & Asmundson, 2006)

The BFNE-II is a 12 item self-report measure that assesses expectation and fear of negative evaluation from others. Answers are rated on a five-point likert scale (1= not at all like me, 5 = extremely like me). Higher scores represent greater fear of negative evaluation from others. There has been some debate about whether the BFNE has a unitary or two factor structure, however most recent research has concluded that a unitary structure is most appropriate (Carleton, Collimore & Asmundson, 2007). Higher scores indicate that an individual has a greater fear of negative evaluation. The BFNE has demonstrated high internal consistency and 4-week test–retest reliability in undergraduate samples (Leary, 1983; Miller, 1995). In this study the BFNE demonstrated good internal consistency with a Cronbach's alpha value of .97.

6.) The Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999)

The INCOM is an 11-item self-report measure of the tendency for an individual to compare themselves to others. Answers are rated on a five-point likert scale, with higher scores representing a greater tendency to make social comparisons. The INCOM has two subscales, one labelled 'ability', consisting of six items concerning the extent to which the individual

compares their own ability to perform to that of others, and one labelled 'opinions', consisting of five items concerning the extent to which the individual compares their thoughts and opinions to that of others. The INCOM has been found to have good psychometric properties, including good internal reliability and construct validity (e.g., Gibbons & Buunk, 1999). The Cronbach's alpha values for the current sample were .72 (ability), and .75 (opinions).

Procedure

The study was granted ethical approval by Loughborough University Research Ethics Committee. All participants read an information sheet and signed a consent form before participating. They completed the measures in a lecture theatre in the presence of the researcher and had the opportunity to ask questions about any questions that they found difficult.

Data analysis

All statistical analyses were performed with PASW – 18.0. All tests were one-tailed, in keeping with the directional hypotheses. Firstly, Spearman's correlations were employed to assess associations between anxiety and depression and all other measures. Partial correlations were then utilised to assess the associations between EDE-Q subscale scores and each interpersonal functioning measures subscale scores, controlling for depression and anxiety. A significance value of 0.01 was used owing to the number of tests.

**Results**

Characteristics of the sample

The mean scores on the EDEQ are shown in Table 3.1. These scores are comparable with other nonclinical groups (e.g. Mond et al., 2006). In terms of self reported eating disorder related behaviours, 4.8% reported occurrence of objective binges in the past four weeks, with 2.4% reporting regular occurrence (one or more times a week). Sixteen percent reported occurrence of subjective binges, with 6% reporting regular occurrence. No individuals reported any occurrence of self-induced vomiting, laxative or diuretics use. 27% reported exercising hard for weight and shape reasons, with 20% reporting regular occurrence (one or more times a week) and 4.8% exercised hard 5 or more times a week. The figures for self reported bingeing, vomiting and laxative/diuretic use are significantly lower than normative data (Mond et al., 2006), while the figures for exercise are comparable. The mean scores on the HADS were: Anxiety = 8.64 (SD = 4.20); Depression = 3.32 (SD = 2.33), which are comparable to results found in previous research (Crawford et al, 2001). The means scores on the measures of interpersonal functioning are shown in Table 3.1. All means were comparable to results found

previously in nonclinical populations (e.g. Carlton et al., 2006; Gilbert & Meyer, 2003; Hopwood, Pincus, DeMoor & Koonce, 2008; Meyer et al., 2009).

Table 3.1. Means (SD) subscale scores on the IIP, AEE, BFNE and INCOM

| Measure | Subscale | Mean (SD) |
|---|---|---|
| EDEQ | Restraint | 1.30 (1.34) |
| | Eating concern | 0.75 (0.99) |
| | Weight concern | 1.73 (1.41) |
| | Shape concern | 2.10 (1.45) |
| IIP | Domineering | 2.09 (2.74) |
| | Vindictive | 2.84 (3.26) |
| | Cold | 2.98 (3.64) |
| | Socially avoidant | 3.40 (3.84) |
| | Non-assertive | 6.20 (4.77) |
| | Exploitable | 6.17 (4.14) |
| | Overly nurturant | 6.30 (4.19) |
| | Intrusive | 3.22 (2.58). |
| AEE | Weakness | 10.18 (3.38) |
| | Non-expression | 12.30 (3.94) |
| | Control | 12.55 (3.59) |
| | Social | 13.34 (2.12) |
| BFNE | Total | 35 (12) |
| INCOM | Ability | 3.01 (0.54) |
| | Opinions | 3.2 (0.55) |

EDEQ = Eating disorder examination questionnaire
IIP = Inventory of interpersonal problems
AEE = Attitude towards emotional expression scale
BFNE = Brief fear of negative evaluation scale
INCOM = Iowa-Netherlands Comparison Orientation Measure

Associations between anxiety, depression, eating disorder attitudes and interpersonal functioning

Table 3.2. shows the results of the correlation analyses employed to assess the relationships between HADS subscales and EDEQ, IIP, AEE, BFNE and INCOM subscales. There were no significant relationships between being too intrusive and anxiety or depression, or between comparing one's opinions to that of others and anxiety or depression. Depression was not associated with restraint or comparing one's ability to that of others. All other subscales on the EDEQ, IIP, AEE, BFNE and INCOM were significantly, positively associated with anxiety and depression. Due to these associations, partial correlations are employed in this study in assessing the relationship between EDEQ scales and interpersonal functioning, controlling for the effect of anxiety and depression.

Table 3.2. Associations between anxiety and depression, eating attitudes and interpersonal functioning

| | | HADS subscale | |
|---|---|---|---|
| Measure | Subscale | Anxiety | Depression |
| EDEQ | Restraint | .451** | .161 |
| | Eating concern | .556** | .310** |
| | Weight concern | .461** | .260** |
| | Shape concern | .503** | .273** |
| IIP | Domineering | .307** | .402** |
| | Vindictive | .549** | .492** |
| | Cold | .480** | .447** |
| | Socially avoidant | .326** | .312** |
| | Non-assertive | .357** | .360** |
| | Exploitable | .324** | .238* |
| | Overly nurturant | .389** | .317** |
| | Intrusive | .101 | .102 |
| AEE | Weakness | .427** | .448** |
| | Non-expression | .419** | .322** |
| | Control | .401** | .304** |
| | Social | .523** | .370** |
| BFNE | Total | .502** | .296** |
| INCOM | Ability | .296** | .181 |
| | Opinions | .011 | -.032 |

HADS = Hospital anxiety and depression scale
EDEQ = Eating disorder examination questionnaire
IIP = Inventory of interpersonal problems
AEE = Attitude towards emotional expression scale
BFNE = Brief fear of negative evaluation scale
INCOM = Iowa-Netherlands comparison orientation measure

Association between eating disorder related attitudes and interpersonal functioning

Table 3.3. shows the results of the partial correlation analyses employed to assess the relationships between EDEQ scales and IIP, AEE, BFNE and INCOM subscales, after controlling for depression and anxiety. There were significant, positive relationships between weight concern and being overly nurturant, emotional non-expression, viewing emotional expression as something to be controlled, fear of negative evaluation from others, comparing your performance to that of others and comparing your thoughts and opinions to that of others. There were significant, positive relationships between eating concern and being too domineering, socially avoidant, exploitable, overly nurturant, the non-expression of emotions, viewing emotional expression as something to be controlled, and fear of negative evaluation from others. There were significant, positive relationships between shape concern and being too exploitable, overly nurturant, fearing negative evaluation from others, comparing your performance to that of others and comparing your thoughts and opinions to that of others. Age and BMI were not correlated to interpersonal functioning.

Table 3.3. Associations between eating disorder related attitudes and interpersonal functioning, using 1-tailed partial correlations controlling for depression and anxiety

| IIP scales | EDEQ subscale | | | |
|---|---|---|---|---|
| | Restraint | Weight concern | Eating concern | Shape concern |
| Domineering | -0.30 | .053 | .260* | .021 |
| Vindictive | -.172 | .095 | .260 | -.011 |
| Cold | .056 | .015 | .194 | .049 |
| Socially avoidant | -.158 | -.003 | .278* | -.028 |
| Non-assertive | -.054 | .080 | .163 | .144 |
| Exploitable | .055 | .178 | .318* | .257* |
| Overly nurturant | -.031 | .315* | .370* | .270* |
| Intrusive | -.030 | .179 | .244 | .199 |
| AEE scales | | | | |
| Sign of weakness | .088 | .187 | .248 | .030 |
| Behavioural style | .103 | .236* | .346* | .143 |
| Control | .191 | .283* | .316* | .198 |
| Social rejection | .146 | .221 | .208 | .112 |
| BFNE | .064 | .320* | .250* | .411* |
| INCOM scales | | | | |
| Ability | .064 | .333* | .155 | .284* |
| Opinion | .070 | .333* | .080 | .346* |

*p > 0.01
EDEQ = Eating disorder examination questionnaire
IIP = Inventory of interpersonal problems
AEE = Attitude towards emotional expression scale
BFNE = Brief fear of negative evaluation scale
INCOM = Iowa-Netherlands comparison orientation measure

**Discussion**

The current study aimed to examine links between eating disorder related attitudes and aspects of interpersonal functioning in a non-clinical population after controlling for levels of depression and anxiety. Results indicated that those with eating disorder related attitudes were found to be more likely to experience interpersonal problems (being too domineering, socially avoidant, exploitable, and overly nurturant). These results replicate the findings of previous work that has examined these links in nonclinical populations (Hartmann, Zeeck & Barrett, 2010). In support of previous findings, those with high levels of eating disorder related attitudes were less likely to express their emotions, and to view their emotions as something to be controlled (Meyer, Leung, Barry & De Feo, 2010). Fear of negative evaluation from others was also found to be associated with eating, weight and shape concern, which supports previous research in nonclinical populations (Gilbert & Meyer, 2003; Gilbert & Meyer, 2005a; Gilbert & Meyer, 2005b). Finally, those with higher levels of eating disorder related attitudes are more likely to compare both their performance and their thoughts and opinions to that of others, in support of previous research (Gilbert & Meyer, 2003). These associations highlight potential interpersonal

factors that could be further investigated in the future to aid the development of longitudinal based models.

As a variety of interpersonal problems were associated with eating disorder related attitudes, this study supports the results of previous research which suggests that there is no common interpersonal style associated with such attitudes (Ambwani & Hopwood, 2009; Hopwood, Clarke & Perez, 2007). For example, being both too domineering and exploitable were associated with eating concern in this study. This appears to be a contradiction, however Pincus, Lukowitsky & Wright (in press) propose a pathoplastic model which suggests that individuals with the same diagnosis vary in the nature of their personality characteristics. Horowitz's goal frustration hypothesis attempts to explain this phenomenon (Horowitz, 2004). Goal frustration theory suggests that psychological distress and maladaptive behaviour occur when interpersonal goals are frustrated. In the present study's sample (and indeed in any sample), there is likely to be a range of interpersonal goals and therefore it is likely that interpersonal problems of different kinds are associated with maladaptive attitudes and behaviour in these individuals. The results of this study add evidence to the pathoplastic model by suggesting that any combination of interpersonal problems is possible. At present, there are few studies which have tested the pathoplasticity of eating disorder features and interpersonal problems (Hopwood, Clarke & Perez, 2007). Further research is needed to test this hypothesis in clinical populations with ED patients.

The present study is a replication study which brings together several different interpersonal factors which have been investigated in previous research. The findings indicate that these interpersonal factors are associated to eating disorder psychopathology. This study is the first to control for depression and anxiety when investigating interpersonal functioning in relation to eating disorder symptoms in a nonclinical population. Given that depression and anxiety have been linked extensively to poor interpersonal functioning (Montgomery, Haemmerlie & Edwards, 1991; Petty et al., 2004), as well as to eating disorder psychopathology (Kaye et al., 2004; Swinbourne & Touyz, 2007; Wildes et al., 2007) it is imperative that they are controlled for when investigating the relationship between eating disorder attitudes and interpersonal functioning. Results indicate that eating disorder attitudes are associated with poor interpersonal functioning irrespective of depression and anxiety.

While this study has demonstrated associations between interpersonal functioning and levels of eating disorder psychopathology in a non-clinical sample, its cross sectional nature makes it impossible to determine the causal structure of the relationship between the these factors.

According to Hartmann, Zeek and Barrett (2009) however, interpersonal problems are a 'core' component of eating disorders in that they (1) serve as a risk factor for development of the disorder, (2) act to maintain the disorder, and (3) often develop as a result of the eating disorder. Pathoplastic models (e.g. Pincus, Lukowitsky & Wright, in press) also suggest that individual difference and psychopathology variables are mutually influential, and therefore one does not 'cause' the other.

Future research could explore respondents interpersonal functioning in more depth, for example by giving respondents a context within which to answer certain interpersonal questions. At present, questionnaires are limited to global impressions of social activity. For example, questions such as 'I find it hard to join in on groups' on the inventory of interpersonal problems are difficult to answer without more information about the group, such as whether the individuals who make up the group are strangers, or whether it is a social or work based group. More information is required regarding the nuances of the situations that cause interpersonal difficulty in order to develop a more objective and specific understanding of respondents' interpersonal functioning in different contexts. The low rates of bingeing and purging in this nonclinical group meant that analysis of relationships between such behaviours and interpersonal functioning was not possible. The figures for bingeing and purging in this sample were significantly lower than rates found in previous nonclinical groups (e.g. Mond et al., 2006). It remains unclear why this is the case. It could be possible that as participants completed the questionnaires in a lecture theatre where other students were present, their answers were influenced by social desirability. Finally, the sample used in the current study is of a modest size. Future studies that include a larger sample could increase the extent to which the results are generalisable.

Despite these limitations, the present study replicates and extends previous research, bringing together studies that have investigated interpersonal functioning from different perspectives and with different definitions. It is clear that those with high levels of eating disorder related attitudes report more maladaptive interpersonal functioning. This study did not address associations between eating disordered behaviours and interpersonal functioning, as the participants did not engage in eating disorder related behaviours. Future research could address this. It is possible that as participants were not in private when completing the measures, that social desirability had an effect on their responses, leading to an unusually low level of self-reported eating disorder related behaviours.

The results of the current study suggest that addressing such maladaptive interpersonal functioning among individuals with eating disorder related attitudes could provide a potential method of enhancing treatment efficacy. This supports previous conclusions, for example Waller, Corstophine, & Mountford (2007) argued that challenging negative attitudes towards emotional expression could help facilitate the acceptance of such emotions and enable the individual to learn emotion regulation strategies. Associations require replication in a clinical group however before conclusions can be drawn regarding implications for treatment.

In conclusion, this study examined the associations between interpersonal functioning and eating disorder related attitudes and behaviours of healthy young women. The results from this research suggest that women with higher levels of eating disorder related attitudes are more likely to experience maladaptive interpersonal functioning in a variety of domains. It appears, according to the current evidence, that all aspects of negative interpersonal functioning are more likely to be experienced by those experiencing eating disorder symptoms, thus supporting the theory of pathoplasticity. The findings of this initial study enrich our understanding of the interpersonal lives of people with eating disorder related attitudes and set the scene for further exploration of interpersonal functioning across diagnostic categories.

# Chapter 4

# Interpersonal problems among women with bulimic disorders and non eating disordered women

## Study 2

# 4. Interpersonal problems among women with bulimic disorders and non eating disordered women

**Introduction to the chapter**

This chapter describes the second quantitative study of this thesis, which aimed to examine the similarities and differences in interpersonal problems between individuals with bulimic disorders and healthy controls. This study employed the same procedures as Study 1, however it focuses on the inventory of interpersonal problems, and incorporates a different version to chapter 3 in order to comply with procedures followed at the eating disorder service (see chapter 2 for a comparison of the two versions).

As demonstrated in chapter 3, poor interpersonal functioning is associated with eating disorder attitudes in nonclinical populations. As indicated in a systematic review of the literature (see chapter 1), at the time of the development of this study, no previous research had explored differences in interpersonal problems between eating disordered and non eating disordered women. Since this study was conducted, one published study has examined these differences (Hartmann et al, 2010). It is important to examine the interpersonal problems experienced by those patients likely to present themselves for treatment, so that clinicians can make predictions about the interpersonal issues that may need to be targeted during therapy. While it would be of use to examine the interpersonal functioning of those with anorexia, this study employs a bulimic sample only as this sample of participants was easy to access through the eating disorder service where patients were recruited

## Study 2: Interpersonal problems among women with bulimic disorders and non eating disordered women


### Abstract

**Objective:** This study aimed to examine the differences in interpersonal problems between women with bulimic disorders and healthy control women.

**Method:** Participants were 74 out-patients at an eating disorder service diagnosed with bulimia nervosa. They completed a measure of interpersonal problems and eating disorder symptomatology after assessment. A sample of seventy-four female undergraduates was used as a healthy control group.

**Results:** Results indicate that women with bulimic disorders report higher levels of generalised interpersonal problems than nonclinical women. All interpersonal problems were higher in the bulimic group, apart from being too open with others.

**Discussion:** Results highlight the significance of interpersonal problems in bulimic disorders and suggest that addressing these problems should remain a focus of treatment and future research.

## Introduction

Eating disorders are known to cause, be precipitated by and be maintained by significant problems in psychosocial functioning (e.g., Fairburn & Harrison, 2003, Stice, Presnell & Spangler, 2002; Streigel-Moore, Silberstein & Rodin, 1986). As well as experiencing dysfunctional eating attitudes and behaviours, many individuals with eating disorders experience interpersonal problems, which encompass a wide range of issues concerning the individual's relationships and social interactions in domains such as romantic and family relationships, friendships and interactions with colleagues (Hartmann, Zeeck & Barrett, 2010). For example, previous research has found that a lack of assertiveness (e.g., Troop, Allan, Treasure & Katzman, 2003), poor social skills (e.g., Suzuki, Takeda, Shirakura & Yoshino, 2003) and high levels of social anxiety and comparison (e.g., Gilbert and Meyer, 2003) have been associated with eating psychopathology. According to Hartmann, Zeeck and Barrett (2010), interpersonal problems such as these have been suggested to be a ''core'' component of eating disorders as firstly they are thought to serve as risk factors in the development of the disorder, secondly they maintain the disorder and finally are more likely to develop further as a result of the eating disorder. Specifically, previous research has found significant associations between eating disorder symptoms and generalised interpersonal problems such as non-assertiveness, finding it hard to be sociable, being too aggressive, and being too involved or distant from others (e.g., Ambwani & Hopwood, 2009; Hopwood, Clarke & Perez, 2007). At present, only one study has compared the interpersonal problems of those with eating disorders to a control group (Hartmann et al., 2010). Employing the IIP- C (Barkham et al., 1994), women with eating disorders were found to be more likely to have a non-assertive, socially inhibited, overly nurturing interpersonal style, and be less likely to experience problems with being too domineering (Hartmann et al., 2010) when compared to a control sample. However the nonclinical data used by Hartmann et al., (2010) for comparison was collected more than 10 years previously to the clinical data (Brähler et al., 1999).

Further highlighting the role of interpersonal problems in eating disorders, interpersonal psychotherapy (IPT-BN; Fairburn 1993; 1997), a treatment approach that focuses on maladaptive interactional patterns, has proven to be effective in reducing symptoms of BN (Fairburn, 1997; Fairburn, Jones, Peveler, Hope, & O'Connor, 1993; Fairburn et al., 1991; Roth & Ross, 1988; Wilfley et al., 1993; Wilfley et al., 2002). Researchers have also argued that IPT is suitable for AN (McIntosh, Bulik, Mckenzie, Luty, & Jordan, 2000), although this has not yet been supported by empirical evidence.

This study aims to replicate Hartmann and colleagues' (2010) study to establish if there are significant differences in interpersonal problems between women with BN and controls. Firstly, in keeping with the findings of Hartmann et al. (2010), it is hypothesised that there will be a significant difference between the groups, with higher levels of interpersonal problems in the BN group. However, given the associations that have been found previously between eating disorders and generalised interpersonal problems (Ambwani & Hopwood, 2009; Hopwood, Clarke & Perez, 2007), no hypotheses are made regarding the differences in interpersonal problems between the groups. This study employs a current control sample, and therefore clinical and control groups are more comparable than in previous research (Hartmann et al, 2010).

**Method**

Participants

Participants were seventy-four female out-patients who were about to commence treatment at an eating disorder unit. They were diagnosed with either typical (n=33) or atypical (n=41) bulimia nervosa (ICD-10, WHO 1992) at their assessment. Patients had a mean age of 27.6 years (SD = 7.72, range = 18-44) and a mean BMI of 23.4 (SD = 5.01, range = 16-40). A sample of seventy-five female volunteers were used as a healthy control group. They had a mean age of 23.7 (SD = 4.48, range = 21-54) and a mean BMI of 24.9 (SD = 6.09, range = 17.5 - 40). The control group were recruited online from university distribution lists. One outlier was removed from the control group due to being aged 52.

Measures and procedure

This study was granted ethical approval from University and local NHS research ethics committees. Eating disordered participants were sent a pack of psychological measures in the order presented below in the post after their assessment and they were asked to return these to the service in a pre-paid envelope. Controls were invited to complete an online version of the same questionnaires via an email link.

1.) The Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994)

The EDE-Q is a 38 item self-report measure, comprising four subscales: restraint, eating concern, body shape concern, and body weight concern. It also addresses key behavioural aspects of eating disorders, including reported frequency of objective binge eating and the use of vomiting as a means of weight control. It addresses the respondent's current state, focusing on the last 4 weeks. High scores on the EDE-Q indicate more pathological eating attitudes and behaviours. Research has indicated that the EDE-Q is both reliable and valid in nonclinical

populations (Luce, Crowther & Pole, 2008). In the current study, the Cronbach's alpha values were (restraint = .87, weight concern = .87, eating concern = .81, shape concern = .91), demonstrating good internal consistency.

2.) Inventory of Interpersonal Problems-32; (IIP-32; Barkham, Hardy & Startup, 1996)

The Inventory of Interpersonal Problems is a self-report measure designed to assess a range of maladaptive interpersonal dispositions. Of the 32 items, 19 statements follow the stem 'It is hard for me to…'. These items assess whether it is hard for the participants to be assertive, be sociable, be supportive, and be involved with others. For example, 'It is hard for me to be assertive with another person'. Thirteen statements follow the stem 'I am too…'. These items assess whether the participants is too caring, dependent, aggressive and open. For example, 'It is hard for me to attend to my own welfare when someone else is needy'. Answers are rated on a five-point likert scale (*1 = not at all, 5 = extremely*). This version of the IIP was used as it is already used within the eating disorder service as part of the assessment process. The IIP-32 has been shown to possess high internal consistency, reliability, and validity (Barkham, Hardy & Startup, 1996). It also has the additional benefit of being the shortest available version of the IIP, therefore taking less time for participants to complete. The Cronbach's alpha values found in the present study were .86 (hard to be assertive), .94 (hard to be sociable), .71 (hard to be supportive), .73 (too dependent), .79 (too caring), .85 (too aggressive), .71 (hard to be involved), and .75 (too open).

Data analysis

All statistical analyses were performed with PASW-18.0. Kolmogorov-Smirnov tests indicated that the data were not sufficiently normally distributed to allow for the use of parametric tests. Therefore, In order to compare levels of interpersonal problems and other aspects of psychopathology across the two groups, a series of Mann-Whitney U tests were used, with a p value of 0.001.

**Results**

Characteristics of the groups

Table 4.1 shows the scores of the two groups on the measure of eating disorder attitudes and behaviours (EDE-Q). There were no significant differences between laxative use and excessive exercise. As would be expected, the women with BN had significantly higher EDEQ subscale scores, as well as a significantly higher frequency of engaging in bingeing and vomiting behaviours. The comparison women also had a significantly lower BMI.

Table 4.1. Eating psychopathology (EDE-Q scores) of control women and women with BN

| | Control women | Bulimic women | Mann Whitney |
|---|---|---|---|
| | M (SD) | M (SD) | z |
| N | 74 | 74 | |
| Age (SD) | 23.7 (4.48) | 27.6 (7.72) | 2.27 |
| BMI | 21.86 (2.92) | 24.9 (6.03) | 2.62* |
| Restraint | 1.51 (1.56) | 3.44 (1.83) | 6.24* |
| Weight concern | 2.39 (1.74) | 4.53 (1.25) | 6.69* |
| Eating concern | 0.85 (1.08) | 3.86 (1.51) | 9.07* |
| Shape concern | 2.34 (1.68) | 4.71 (1.25) | 7.45* |
| Global | 1.78 (1.37) | 4.24 (1.19) | 8.42* |
| Objective binge episodes | 4.02 (11.58) | 21.7 (11.46) | 6.43* |
| Self-induced vomiting | 0.04 (0.20) | 20.2 (12.10) | 11.0* |
| Laxative use | 0.00 | 1.96 (5.71) | .615 |
| Exercise | 0.43 (0.49) | 6.18 (10.07) | .794 |

* $p < 0.01$

Interpersonal problems in control women and women with BN

Table 4.2 shows the scores of the two groups on the measure of interpersonal problems (IIP-32). There was no significant difference in the two groups with regards to the being too open subscale. However, women with BN reported a significantly higher IIP-32 scores on all other subscales.

Table 4.2. Interpersonal problems (IIP-32 scores) in control women and women with BN

| | Comparison women | Bulimic women | Mann Whitney |
|---|---|---|---|
| | M (SD) | M (SD) | z |
| Hard to be assertive | 1.41 (0.98) | 2.33 (1.07) | 4.98* |
| Hard to be sociable | 0.83 (0.98) | 2.07 (1.05) | 6.54* |
| Hard to be supportive | 0.42 (0.46) | 0.94 (0.87) | 3.86* |
| Too dependent | 1.71 (0.76) | 2.08 (0.72) | 3.58* |
| Too caring | 1.13 (0.83) | 2.07 (1.06) | 5.18* |
| Too aggressive | 0.79 (0.85) | 1.53 (0.91) | 5.16* |
| Hard to be involved | 0.68 (0.95) | 1.73 (1.00) | 6.30* |
| Too open | 1.99 (0.67) | 1.49 (1.01) | 3.37* |
| Total | 1.13 (0.49) | 1.77 (0.47) | 6.47* . |

* $p < 0.01$

**Discussion**

This study aimed to replicate and improve previous research in establishing whether there are differences in interpersonal problems between women with BN and comparison women, utilising a current nonclinical control sample. As hypothesised, results indicate that women with BN report higher levels of generalised interpersonal problems than healthy control women. All interpersonal problems were more likely to be reported by women with BN than comparison women, apart from problems with being too open, which were more likely to be reported by nonclinical women.

These findings support previous research which has indicated that eating disordered women have been found to be more likely to have a non-assertive, socially inhibited, overly nurturing interpersonal style, and be less likely to experience problems with being too domineering (Hartmann et al., 2010) when compared to a healthy control sample. The finding that women with BN had fewer problems than non-eating disordered women with being too open supports previous research that has found eating disordered women to have a negative attitude towards emotional expression (Meyer, Leung, Barry & De Feo, 2010; Geller, Cockell & Hewitt, 2000). It is likely that as women with BN find it harder to be involved with others and harder to be sociable than control women in the current study, they are similarly less likely to share their experiences with others, and therefore do not have as many problems with being too open.

These findings support the notion that all interpersonal problems (apart from being too open) are reported by women with BN and therefore there is no common interpersonal style associated with the eating disorders (Ambwani & Hopwood, 2009; Hopwood, Clark & Perez, 2007). For example, women with BN in this sample were more likely to be too caring yet also be too aggressive, more likely to be dependent but also more likely to find it hard to be involved with others. Ambwani and Hopwood (2009) claim that this occurs due to the variation in interpersonal goals between individuals with the same diagnosis. Horowitz (2004) proposes a theory of goal frustration, which suggests that psychological distress and maladaptive behaviour occur when an individual's interpersonal goals are frustrated. As people have different goals, different interpersonal problems may be linked to maladaptive behaviour in different individuals, even when they share a common diagnosis. For example, while some may binge to cope with feelings of abandonment, others may binge eat to try and resolve feelings of powerlessness (Brown, 1985). This theory of goal frustration is linked to pathoplastic models of personality and psychopathology (Pincus, Lukowitsky & Wright, in press). Pathoplasticity proposes that individual difference and psychopathology variables are not linearly related but are mutually influential. While linear models might suggest that the same interpersonal difficulties increase the risk of maladaptive eating attitudes and behaviours for all individuals (e.g., Bjorck, Clinton, Sohlberg, Hallstram, & Norring, 2003; Hayaki, Friedman, Whisman, Delinsky, & Brownell, 2003), pathoplasticity suggests that interpersonal problems vary between people with the same diagnosis.

This study is the first to assess differences in interpersonal problems between women with BN and healthy controls using a current control sample. However, the cross sectional nature of this study does not allow conclusions about causality to be drawn and further longitudinal research is required to assess these relationships. It is suggested that interpersonal problems and eating disorder pathology are mutually influential, and therefore one does not 'cause' the other. This is supported by the theory of pathoplasticity, which states that there is no common pathway between eating disorder symptoms and personality characteristics such as interpersonal problems (Pincus, Lukowitsky & Wright, 2010). This study is also limited in that it studies only women, as the small number of males in the patient group excluded them from analysis. Control women were also not matched with women with BN for age, as they were drawn from an undergraduate population. It could be suggested that interpersonal problems could reduce with age due to the individual's life experience. Future research could address this and also explore interpersonal problems in women with AN. Finally, this study did not control for the effects of anxiety and depression, which have been known to be linked to both eating disorders (Kaye et al., 2004; Swinbourne & Touyz, 2007; Wildes et al., 2007) and poor

interpersonal functioning (Montgomery, Haemmerlie & Edwards, 1991; Petty et al., 2004). It was not possible to include measures of depression and anxiety in this study as these measures were not part of the assessment process at the eating disorder service.

Despite the limitations of this study, these findings have a clear relevance to clinical practice. The results of the current study suggest that addressing interpersonal problems in individuals with BN could provide a potential method of enhancing treatment efficacy, thus supporting the use of IPT-BN as a useful and valid therapeutic model. It is clear that a comprehensive model of the eating disorders must include different aspects of their interpersonal life. The model of interpersonal psychotherapy for the eating disorders (Reiger, Van Buren, Bishop, Tanofsky-Kraff, Welch & Wilfley, 2010) asserts that negative social evaluation triggers disturbances in self-evaluation and affect, resulting in eating disorder symptoms. Interpersonal psychotherapy aims to address feelings of social inadequacy and increase the patient's sense of competence, therefore reducing negative affect that could trigger binge eating (Wilfley et al., 2002).

In conclusion, all types of interpersonal problem could be present among women with BN and therefore it is important that there is a clarification of the patient’s interpersonal goals and difficulties during therapy. According to Ambwani & Hopwood (2009), a targeted interpersonal approach is crucial in enhancing the therapeutic alliance and to limit treatment dropout.

# Chapter 5

# Interpersonal problem solving in women with self-identified eating disorders

## Study 3

# 5. Interpersonal problem solving in women with self-identified eating disorders

**Introduction to the chapter**

This chapter describes the third quantitative study of this thesis. The aim of this thesis is to explore interpersonal functioning in the eating disorders, and how this is treated by interpersonal psychotherapy. As part of this overall aim, this chapter aims to investigate the interpersonal problem solving skills of those with self identified eating disorders. Study 2 employed measures of interpersonal functioning to assess differences between those with bulimic disorders and healthy controls. However, questionnaires such as those employed in study 2 are limited to global impressions of social activity. The current study employs a measure which gives participants interpersonal problem scenarios on which to base their answers, and therefore assesses their social problem solving skills. The use of this measure will allow more specific conclusions to be made about the interpersonal abilities of those with high levels of eating disorder related attitudes and behaviours, as this measure presents the participant with specific interpersonal scenarios to consider.

In addition to gaining more objective answers from participants which are grounded in real life scenarios, it is important to assess interpersonal problem solving skills as IPT-BN aims to help patients improve these skills (Apple, 1999). Gaining an understanding of how individuals with eating disorders approach interpersonal problem situations improves clinicians' knowledge of which problems therapy could be required to target.

## Study 3: Interpersonal problem solving in women with self-identified eating disorders


### Abstract

**Objective:** Interventions for people suffering from eating disorders often include a social problem solving component. However, there is a lack of research that explores the social problem solving skills of this client group. This study examines the interpersonal problem solving abilities of those with a high level of eating disorder related attitudes and behaviours.

**Method:** Twenty-six women with self-identified eating disorder psychopathology and 30 healthy controls were given a shortened version of the Means-Ends Problem Solving Procedure, which asks participants how they would deal with certain challenging interpersonal situations. The generated solutions are analysed for the relevant means (number of ways of solving the problem), and their effectiveness and specificity.

**Results:** Participants with self identified eating disorders generated significantly fewer means to solve social problems than healthy controls. These means were also less effective and less specific than those generated by healthy controls.

**Discussion:** The results of this study suggest that those with self-identified eating disorders have less social problem solving skills, and that therapy could benefit from addressing these skills.

## Introduction

Previous research has indicated that difficult interpersonal situations are often triggers of eating disordered behaviours (e.g., Heatherton & Baumeister, 1991, Stein et al., 2007). Similarly, poor interpersonal functioning has been repeatedly associated with eating disorders, with findings indicating that a non-assertive, socially inhibited style is common (e.g., Hartmann, Zeeck & Barrett, 2010). Women who engage in binge eating are characterised by a more avoidant coping style (Baigrie & Giraldez, 2008), while an avoidant coping style is associated with an elevated risk of a binge occurring (Freeman & Gil, 2004). Following on from this, it appears that interpersonal problem solving skills are also limited in women with AN and BN (Bloks, Spinhoven, Callewaert, Willemse-Koning, & Turksma, 2001; Espelage, Quittner, Sherman, & Thompson, 2000; Ghaderi & Scott, 2000; Troop, Holbrey, & Treasure, 1998). For example, Ghaderi and Scott (2000) found that patients with eating disorders were more likely to avoid problems and reported lower levels of purposeful problem solving than those without eating disorders.

However, previous studies are solely based on self report questionnaires. Such measures consist of questions that are limited to overall impressions of the individual's social activity. For example, the Inventory of Interpersonal Problems 32 (IIP32; Barkham, Hardy & Startup, 1996) asks participants to rate statements such as 'It is hard for me to join in on groups' on a Likert scale ranging from 'not at all' to 'extremely'. This is difficult for participants to answer without any information about the group in question. Without such contextual information it is difficult for the participant to answer such questions about their social experiences objectively. The current study therefore aims to examine interpersonal functioning by giving participants specific interpersonal problem scenario's on which to base their answers.

The present study aims to investigate the interpersonal problem solving skills of those with self identified eating disorders, in comparison to a control group. This study focuses on the initial steps of the problem-solving process as assessed by the Means End Problem Solving Procedure (Platt, Spivack, & Bloom, 1975). Given the wealth of evidence that suggests interpersonal functioning is impaired in those with eating disorder symptoms, it is hypothesised that those with eating disorder symptoms will have poorer interpersonal problem solving abilities than individuals in the control group. As previous research has found that women with eating disorders have poor social problem solving skills and avoidant coping style (e.g. Ghaderi & Scott, 2000) it is expected that women with self identified eating disorders will find it harder to identify the necessary steps for effective problem-solving than healthy controls. Given that depression and anxiety have previously been linked both to eating disorders (e.g. Hudson,

Hiripi, Pope Jr. & Kessler, 2007) and to poor problem solving skills (Evans, Williams, O'Loughlin & Howells, 1992; Goddard, Dritschel, & Burton, 1997), it is hypothesised that within the group as a whole, depression and anxiety will mediate the relationship between eating disorder attitudes and MEPS scores.

In summary, this study aims firstly to investigate whether there is a difference in social problem solving skills between women with self-identified eating disorders and a healthy control group. It is hypothesised that those with self-identified eating disorders will have significantly poorer social problem solving skills than controls, in that they will generate less means to solve the problem, and that these means will be less effective and specific. Secondly, this study aims to examine whether depression and anxiety mediates the relationship between eating disorder attitudes and MEPS scores in the group as a whole. It is hypothesised that this will be the case.

This study employs a population with self identified eating disorders, recruited from charities that offer support to people with high levels of eating disorder symptoms. Despite being unlikely to receive NHS treatment, these individuals represent a large proportion of sufferers (Touchette et al., 2011). As it has been shown that psychosocial impairment is linearly associated with eating disorder symptoms (Wade, Bergin, Martin, Gillespie & Fairburn, 2006), the differences between clinical and subclinical eating disorder features are likely to be marginal (Stice, Ziemba, Margolis, & Flick, 1996). Gaining an understanding of interpersonal functioning in individuals with high levels of eating disorder attitudes and behaviours also advances our understanding of interpersonal functioning in those with clinical levels, given that differences are marginal (Stice et al., 1996).

**Method**

Participants

Self identified eating disorder group

Twenty-six individuals were recruited from two voluntary eating disorder organisations which give support to those with self-identified eating disorders. While this group do not have a formal diagnosis, they are considered to have a high level of eating disorder associated attitudes and behaviours. Participants had a mean age of 27.69 (SD = 8.7, range =17-45) and a mean BMI of 21.05 (SD = 2.83, range = 14.88 – 30.74).

Control group

Twenty-five undergraduate students were recruited through Loughborough University's research participation scheme where first year students take part in research in return for

course credits. Control participants had a mean age of 26.97 (SD = 11.69, range =18-54) and a mean BMI of 21.51 (SD = 3.61, range = 17.46 – 30.99).

Measures and procedure

Participants completed the following psychological measures in the order presented below. They completed them in a private room under the researcher's supervision. They gave informed consent before beginning.

1.) The Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994)

The EDE-Q is a 38 item self-report version of the interview based Eating Disorders Examination. It measures four aspects of eating disorders psychopathology; restraint, eating concern, body shape concern, and body weight concern. It also addresses key behavioural aspects of eating disorders, including reported frequency of objective binge eating and the use of vomiting as a means of weight control. It addresses the respondents' current state, focusing on the last 4 weeks. High scores on the EDE-Q indicate more pathological eating attitudes and behaviours. The EDE-Q has been used extensively in non-clinical populations (e.g. Haslam et al., 2008; Meyer et al., 2010). Mond et al (2004) is the only study exploring predictive validity, and the researchers found that the EDE-Q had acceptable validity when used to detect community cases of clinically significant eating disorders. Results have also indicated the EDE-Q has excellent internal consistency and test-retest reliability (Luce & Crowther, 1999). In the current study, the Cronbach's alpha values were (restraint = .85, weight concern = .89, eating concern = .79, shape concern = .93), demonstrating good internal consistency.

2.) Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983)

The HADS is a 14 item self-report measure that contains 7 statements relating to anxiety and 7 statements relating to depression. Each item is answered on a four point (0–3) response category resulting in possible scores ranging from 0 to 21 for anxiety and depression separately. The depression questions do not assess somatic aspects of depression such as insomnia and weight loss but instead focus on perceptions of the state of anhedonia. Despite the term 'hospital' in the title, many studies have confirmed that the HADS is valid when used in community settings (Bjelland, Dahl, Haug & Neckelmann, 2002). In the current study, the anxiety subscale had a Cronbach's alpha of .84 and the depression subscale had a Cronbach's alpha of .89, indicating good internal consistency.

3. The Means End Problem Solving Procedure (MEPS; Marx, Williams, & Claridge, 1992)

The MEPS was originally developed to assess means-end cognition: i.e. the ability to identify the necessary steps to achieve a particular goal (Platt, Spivack & Bloom, 1975). Participants

are presented with a problem scenario and are asked to 'describe the best strategy to overcome the problem.' These instructions used here are consistent with the procedure adopted by Marx et al. (1992). The participants were provided with the beginning and the ending of a story and are asked to provide the middle section, thus linking the beginning to the end. The scenarios are provided both verbally by the researcher and the participant is also given a card with the story written on to follow. Participants were given three minutes for each story, and the stories were presented in a randomised order. Participants' responses are tape recorded and then transcribed verbatim. Participants' responses are scored in three ways. Firstly they are scored on the number of relevant means (each potentially effective step to achieve the goal). Secondly responses are scored for effectiveness (rated subjectively on a 1-7 Likert scale). An answer is considered effective if it maximises positive and minimised negative short and long-term consequences (D'Zurilla & Goldfried, 1971). Finally the response is scored for specificity (rated subjectively on a 1-7 Likert scale). An answer is considered specific if it gives precise details about the steps taken (D'Zurilla & Goldfried, 1971).

In the present study, a shortened version of the MEPS was used (Marx, Williams, & Claridge, 1992). Four out of the ten scenarios were chosen as they addressed interpersonal issues: an argument with a partner (scenario 2 of the original MEPS), making friends in a new neighbourhood (scenario 4), friends avoiding you (scenario 8) and difficulties with the boss (scenario 10). The MEPS is considered to have adequate psychometric properties (Platt, Spivack & Bloom, 1975). The MEPS has an advantage over other self-report instruments in that it provides real life scenarios for participants to base their answers on. In this way the measure provides an indication of real-life social problem-solving behaviour, and therefore has increased external validity. For the current study, inter-rater reliability was established by a second rater, blind to group membership of participants, scoring 20% of MEPS responses. Inter-rater reliability was high (Spearman's rho was at least .9 for each of the outcome variables), indicating that the rating of the modified MEPS was reliable. Due to this high reliability, one rater scored the remainder of the MEPS.

Data analysis

All statistical analyses were performed with PASW-18.0. The scores on the EDEQ were not normally distributed, therefore nonparametric analyses were performed. All tests were one-tailed, in keeping with the directional hypotheses. Mann Whitney U tests were employed to test the first hypothesis that there were significant differences in generated means, effectiveness and specificity scores on the MEPS between the self identified eating disorder group and the nonclinical group. To test the second hypothesis that there might be mediating effects of depression and anxiety, several mediator analyses were conducted. The mediation models

were tested in a number of steps using Baron and Kenny's (1986) procedure. According to Baron and Kenny (1986), full mediation is evident if: (1) the independent variable predicts the dependent variable, (2) the independent variable predicts the mediator, (3) the mediator predicts the dependent variable, and (4) the independent variable no longer significantly predicts the dependent variable when entered into a regression with the mediator. Partial mediation is present when the strength of the relationship between the variables decreases but remains significant when the mediator is controlled. Firstly, the relationship between EDEQ global score and the MEPS subscale was tested using regression analysis. Secondly, the relationship between EDEQ global score and depression or anxiety was tested. Next, the relationship between depression or anxiety and MEPS subscale was measured. Finally, the relationship between EDEQ global score and MEPS subscale was measured, whilst controlling for depression or anxiety.

## Results

Characteristics of the sample

The mean scores on the psychological measures are shown in Table 5.1. As would be expected, the women with self identified eating disorders had significantly higher levels of eating disorder attitudes, depression and anxiety than the comparison women. It is considered by previous research that an EDE-Q score of between 3 and 4 is considered to be subclinical, while scores of over 4 are considered to be of clinical severity (e.g. Carter, Stewart & Fairburn, 2001; Pernick et al, 2006). It is clear from the subscale means that the sample employed in this study fits with what is considered to be 'subclinical' in the research literature. The scores for the EDE-Q and HADS in the control group are comparable with other female nonclinical groups (Mond, Hay, Rodgers, Owen & Beumont, 2004; Crawford, Henry, Crombie & Taylor).

Table 5.1. Characteristics of the sample

| Measure | Women with self identified ED (n = 26) M (SD) | Control women (n = 30) M (SD) | Mann Whitney Test Z |
|---|---|---|---|
| $HADS_{DEP}$ | 7.9 (4.15) | 2.16 (1.96) | 5.04** |
| $HADS_{ANX}$ | 12.61 (4.62) | 5.47 (3.00) | 5.12** |
| Restraint | 3.35 (1.94) | 1.42 (1.18) | 3.82** |
| Eating concern | 2.83 (1.34) | 1.00 (.99) | 5.05** |
| Weight concern | 3.85 (1.54) | 1.55 (1.36) | 5.13** |
| Shape concern | 4.53 (1.33) | 2.14 (1.58) | 5.07** |
| Limiting food intake daily | 42.3% | 10% | |
| Bingeing in the last month | 5.26 (8.82) | .07 (0.25) | |
| Self-induced vomiting in the last month | 8.38 (22.2) | 0 | |
| Excessive exercise in the last month | 6.61 (9.42) | 0.06 (1.45) | |

$HADS_{DEP}$ = Hospital anxiety and depression scale, depression subscale

$HADS_{ANX}$ = Hospital anxiety and depression scale, anxiety subscale

** $p < 0.01$

Interpersonal problem solving in women with self-identified ED and controls

Table 5.2 shows the scores of the two groups on the MEPS. Women with self identified eating disorders generated a significantly lower number of relevant means to solve the interpersonal problem situation. In other words, they gave fewer suggestions of how to solve the presenting problem. In addition, the relevant means that they generated were significantly less effective and less specific than those generated by controls. Under the rating system (7 point Likert scales), their answers were considered to be less likely to maximise positive outcome, and the steps the suggested were less precise than those suggested by the control group.

Table 5.2. MEPS scores of women with self identified ED and control women

| | Women with self identified ED (n = 26) | Control women (n = 30) | Mann Whitney test |
|---|---|---|---|
| | M (SD) | M (SD) | z |
| Relevant means | 1.41 (0.98) | 2.33 (1.07) | 2.34* |
| Problem solving effectiveness | 0.83 (0.98) | 2.07 (1.05) | 2.92** |
| Problem solving specificity | 0.42 (0.46) | 0.94 (0.87) | 2.69** |

*p<0.05 **p<0.01

Depression and anxiety as mediators of the relationship between eating disorder attitudes and interpersonal problem solving skills

In order to test the hypothesis that depression and anxiety will mediate the relationship between eating disorder attitudes and MEPS scores in the group as a whole, several mediator analyses were conducted using Baron and Kenny's (1986) procedure. Firstly, the relationship between EDEQ global score and the MEPS subscale was tested using regression analysis. Secondly, the relationship between EDEQ global score and depression or anxiety was tested. Next, the relationship between depression or anxiety and MEPS subscale was measured. Finally, the relationship between EDEQ global score and MEPS subscale was measured, whilst controlling for depression or anxiety. Anxiety did not significantly predict problem solving effectiveness, however depression and anxiety mediated all other relationships between EDEQ global score and MEPS subscales.

Mediating effect of depression on MEPS - relevant means

EDEQ global score significantly predicted relevant means (β=.-.275, p=.041), and depression (β=1.840, p<.0001). Depression scores significantly predicted relevant means (β = -.141, p=0.002). With β = -.069 (p = .638) for global score and β = -.121 (p = .048) for depression scores, the β- coefficient for global score was substantially smaller in the conjunctive regression analysis compared to the separate regression analysis. Hence, severity of depression fully mediated the link between the number of relevant means and ED attitudes.

Mediating effect of anxiety on MEPS – relevant means

EDEQ global score significantly predicted relevant means (=-.275, p=.041), and anxiety (β=2.313, p<.001). Anxiety scores significantly predicted relevant means (β =-.086, p=.016). With β=.170 (p=.276) for global score and β=-.047 (p=.345) for anxiety scores, the β- coefficient for group was slightly smaller in the conjunctive regression analysis compared to the separate

regression analysis. Hence, anxiety fully mediated the link between relevant means and ED attitudes.

Mediating effect of depression on MEPS - effectiveness

EDEQ global score significantly predicted effectiveness (β=-.243, p=.046), and depression (β=1.84, p<.0001). Depression scores significantly predicted effectiveness (β=-.137, p=.005). With β=-.021 (p=.896) for global score and β= -.131 (p=.054) for depression scores, the β coefficient for group was substantially smaller in the conjunctive regression analysis compared to the separate regression analysis. Hence, severity of depression fully mediated the link between problem solving effectiveness and ED attitudes.

Mediating effect of depression on MEPS - specificity

EDEQ global score significantly predicted specificity (β=-.272, p=.007) and depression (β=1.84, p<0.0001). Depression scores significantly predicted specificity (β=-.134, p=0.001). With β=.158 (p=.358) for global score and β=-.313 (p=0.07) for depression scores, the β coefficient for group was substantially smaller in the conjunctive regression analysis compared to the separate regression analysis. Hence, severity of depression fully mediated the link between problem solving specificity and ED attitudes.

Mediating effect of anxiety on MEPS - specificity

EDEQ global score significantly predicted specificity (β=-.272, p=.007) and anxiety (β=2.313, p<.001). Anxiety scores significantly predicted specificity (β=-.074, p=0.25). With β=-.221 (p=.122) for group and β=-.077 (p=.662) for anxiety scores, the β- coefficient for global score was slightly smaller in the conjunctive regression analysis compared to the separate regression analysis. Hence, anxiety fully mediated the link between problem solving effectiveness and ED attitudes.

**Discussion**

This study aimed to establish whether there are differences in interpersonal problem solving skills between women with self-identified eating disorders and non-eating disordered women. As hypothesised, results indicate that when women with self identified eating disorders approach an interpersonal problem scenario they generate fewer means to solve the problem, and these means are both less effective and less specific than the means generated by healthy control women. These findings support previous research which has indicated that women with eating disorder symptoms have been found to be more likely to have poorer interpersonal problem solving skills (Bloks, Spinhoven, Callewaert, Willemse-Koning, & Turksma, 2001; Espelage, Quittner, Sherman, & Thompson, 2000; Ghaderi & Scott, 2000; Troop, Holbrey, &

Treasure, 1998; Svaldi, Dorn & Trentowska, In Press) and to consider themselves to be less effective in social situations (Suzuki, Takeda, Shirakura, & Yoshino, 2003; Wagner et al., 1987). This study however, uses a measure which employs specific problem scenarios for participants to consider, and therefore answers are more objective and ecologically valid. Interpersonal issues often act as triggers of eating disordered behaviours. For example, binge eating episodes have been found to be a means of escape from negative emotions caused by difficult interpersonal situations (Heatherton & Baumeister, 1991, Stein et al., 2007). Therefore, it appears that having the ability to cope with and problem solve difficult interpersonal situations could be important in helping reduce the frequency of eating disordered behaviours.

As hypothesised, statistically the problem solutions generated by the group of women with self identified eating disorders were significantly fewer, less effective and less specific than those generated by healthy controls. However, the MEPS subscales do not capture the richness of the answers given by participants regarding their experiences of addressing interpersonal problem scenarios. In qualitative terms, women in the self identified eating disorder group often reported that they found confrontation difficult, and would avoid dealing with a problem for as long as possible before deciding to address it. For example, when imagining they are not getting along well with their boss, women with self identified eating disorders frequently reported that they would avoid talking to their boss about this. Previous research supports the notion that individuals with eating disorders are low in assertiveness (Troop, Allan, Treasure, & Katzman, 2003; Williams et al., 1993), and tend to have an avoidant coping style (Baigrie & Giraldez, 2008).

It could be that women with self identified eating disorders have reduced problem solving capacity due to the perfectionistic concerns that have been found in this population (Halmi et al., 2000; Hewitt, Flett & Ediger, 1995). As suggested by Svaldi et al (In Press), it is possible that being concerned about mistakes and procrastination about the best solution to a problem could lead women with eating disorder symptoms to generate less effective solutions. Ultimately, such perfectionism could lead to binge eating as a coping strategy (Grilo, Masheb & Wilson 1994). Future studies could investigate the interaction between social problem solving and perfectionism in ED. Secondly, it could be that women with high levels of eating disorder attitudes and behaviours have reduced problem solving capacity due to levels of depression and anxiety. Previous research has suggested that poor performance on the MEPS in those with depression is caused by the individual's reduced ability to retrieve specific autobiographical memories (Evans et al., 1992; Goddard Dritschel, & Burton, 1996; Goddard et al., 1997; Svaldi et al., In Press). According to Goddard et al. (2001; 1997), if an individual cannot retrieve specific memories this reduces their ability to generate a specific solution to current problems.

In this study, women with self identified eating disorders generated problem solutions that were significantly less specific than those given by controls. This supports the suggestion that women with high levels of eating disorder symptoms have difficulty generating specific autobiographical memories and that this could affect their ability to generate specific problem solutions. In this sample, depression and anxiety mediated the relationship between EDEQ global score and MEPS scores, which supports this hypothesis. Therefore it remains unclear whether eating disorder symptoms specifically result in or are caused by poor interpersonal problem solving skills, or whether these poor problem solving skills are mainly a feature of underlying anxiety/depression.

The results of this study provide empirical support for the use of therapies which address problem solving deficits in eating disorders in order to promote therapeutic change, for example interpersonal psychotherapy. According to Hartmann, Zeek and Barrett (2009, interpersonal problems are a 'core' component of eating disorders in that they (1) serve as a risk factor for development of the disorder, (2) act to maintain the disorder, and (3) often develop as a result of the eating disorder. Therefore it could be suggested that targeting interpersonal problem solving skills in those with high levels of eating disorder related attitudes and behaviours could reduce such symptoms.

This study is the first to assess interpersonal problem solving skills of those with high levels of eating disorder symptomatology. One advantage of using the MEPS is that by giving participants specific situations to consider, it is more objective than questionnaire self report measures. However, the MEPS is limited in that it does not measure actual behaviour. An individual may be able to solve a problem theoretically however this does not mean they would carry out their suggested behaviour in real life situations. While participants might be aware of the ideal way to deal with a situation, they often reported that this would be difficult to implement in reality. This indicates a weakness of the MEPS, as it asks people to identify the ideal means of solving the problem, however this does not mean that they would choose to or have the ability to employ this means in their own life.

In addition, the participants are informed that the MEPS scenarios end well, and therefore their anxiety regarding the outcome could be reduced compared to when the outcome is unknown. As acknowledged by Svaldi et al (In Press), a measure that gives open ended scenarios and assesses the extent to which participants believe they would carry out the behaviour in reality could be of benefit in increasing the ecological validity of the measure. The results of this study suggest that women with self identified eating disorders perform poorly on tasks assessing means end thinking. At present, it is unknown if they have deficits in other skills

such as identifying and defining a problem, identifying alternative strategies for overcoming the problem, and choosing and evaluating one strategy. According to D'Zurilla and Goldfried (1971) these are all important parts of the problem solving process. Finally, this study has a relatively small sample size which reduces the generalisability of the results.

In conclusion, it appears that women with subclinical levels of eating disorder related attitudes and behaviours have a deficit in the identification of relevant, specific steps that would be important in solving interpersonal problems compared to healthy controls. This supports the utility of therapies which aim to improve social problem solving skills such as interpersonal psychotherapy. Within the group as a whole, the relationship between interpersonal problem solving skills and eating disorder attitudes was mediated by anxiety and depression. Future studies could employ larger samples and control for depression, anxiety, perfectionism and the ability to retrieve specific autobiographical memories. The latter could prove challenging in a study such as this however. According to Griffith et al (2011) the retrieval of such memories is a complex process in which 'mental traces of past events and related semantic knowledge are shaped into mental representations in light of current goals and concerns'. One possible method of measuring these memories could be through the Autobiographical Memory Test (Williams & Broadbent, 1986) where participants are presented with words and then instructed to describe a specific memory that the cue word reminds them of, within a given time frame. A variation adapted by McNally et al (1995) focuses the measure more on self-relevant memories. This narrowing of the scope of the measure fits more with Conway and Pleydell-Pearce's (2000) notion that these memories are influenced by self related schemata. For a discussion on the methods of investigating over-general autobiographical memories, see Griffith et al (2011). Further exploration of autobiographical memories and a consideration of how to measure these would be beneficial to a future replication or extension of the current study. Finally, while the mean scores of the subclinical sample in this study fit with descriptions of subclinical levels in the research literature (Carter, Stewart &, 2001; Pernick et al., 2006), individual participants were not excluded from this study based on EDE-Q scores due to difficulty recruiting participants. Future studies could benefit from using EDE-Q scores to determine inclusion in the subclinical group.

# Chapter 6

# Invalidating childhood environments and eating psychopathology among young women: The mediating role of attitudes towards emotional expression

## Study 4

# 6. Invalidating childhood environments and eating psychopathology among young women: The mediating role of attitudes towards emotional expression

**Introduction to the chapter**

This chapter describes the fourth quantitative study of this thesis. This study is the first in this thesis which considers the origins of interpersonal problems in the eating disorders. It is important to consider the possible causes of maladaptive functioning as this could help inform treatment which aims to treat such interpersonal functioning. This thesis explores one possible cause of poor interpersonal functioning – the experience of an invalidating childhood environment. Firstly, this study aimed to investigate the relationship between the experience of an invalidating childhood environment and reported eating disorder related attitudes later in life. Secondly, this study explored a mediator of this relationship: the individual's attitude towards emotional expression, which was found to be associated with eating disorder attitudes in Study 1.

The origin of interpersonal problems in the context of the eating disorders is yet to be addressed in the research literature. One possible cause of maladaptive interpersonal functioning is the experience of an invalidating childhood environment. There is a wealth of evidence supporting links between the childhood family environment and eating disorder related attitudes and behaviours, and recent research has examined links between an experience of an invalidating childhood environment and eating disorders (Haslam, Mountford, Meyer & Waller, 2008; Mountford, Corstorphine, Tomlinson & Waller, 2007). However, the way in which the experience of invalidating childhood environments manifests itself in later life, such as through interpersonal problems, has not yet been addressed. Specifically, this study focuses on negative attitude towards emotional expression as a possible mediator of the relationship between invalidating childhood environments and adult eating psychopathology.

A version of this chapter is currently in press as:

Haslam, M., Arcelus, J., Farrow, C., & Meyer, C. (In Press). Invalidating childhood environments and eating psychopathology among young women: The mediating role of attitudes towards emotional expression. *European Eating Disorder Review.*

## Study 4: Invalidating childhood environments and eating psychopathology among young women: The mediating role of attitudes towards emotional expression


### Abstract

**Background:** Previous research has explored the relationships between invalidating childhood environments and adult eating disordered attitudes, behaviours and diagnosis. While there is evidence to suggest that there is a relationship between parental invalidation and eating disorder related attitudes and behaviours, the mediators of this relationship are currently unknown. This study examined the relationship between invalidating childhood environments and eating disorder related attitudes in a nonclinical sample, and tested the potentially mediating effect of the individual's attitudes towards emotional expression.

**Method:** Two hundred healthy young women completed a measure of invalidating childhood environments, a measure of their attitudes towards emotional expression and a standardised measure of eating psychopathology.

**Results:** Eating concerns were positively associated with recollections of an invalidating maternal and paternal environment. The belief that the expression of emotions is a sign of weakness fully mediated the relationship between childhood maternal invalidation and adult eating concern.

**Discussion:** Following replication and extension to a clinical sample, these results suggest that targeting the individual's attitude towards emotional expression might reduce eating attitudes among women who have experienced an invalidating childhood environment.

**Introduction**

Childhood environments are linked to eating disordered attitudes and behaviours in later life (e.g., Schmidt, Humfress & Treasure, 1998). Such research has focused on the child's development of emotional states and in particular the family's input to the child's processing of negative emotions (e.g., Kent & Waller, 2000; Parker, 1983). In some cases, the child develops an understanding that negative emotional states are not acceptable and they respond by using 'blocking' mechanisms to reduce awareness of such states (e.g., Root & Fallon, 1989; Waller, Kennerley & Ohanian, 2007). These blocking mechanisms can include impulsive behaviours such as bingeing and purging, as well as dietary restriction and compulsive exercise (Root & Fallon, 1989).

Previous research has linked individuals' experience of negative emotions with childhood abuse and neglect (Kent & Waller, 2000) and poor experiences of parental care (Parker, 1983). However, such research has not explained how the child develops the belief that negative emotions are unacceptable. Linehan attempts to explain this with her theory of 'invalidating childhood environment' (1993) which she defined as an environment where the child's emotional experiences are not validated by the parents and the expression of such emotions is met with punishment or neglect. Invalidating childhood environments have been found to be associated with eating disorders. For example, Mountford, Corstophine, Tomlinson & Waller (2007) found that emotional invalidation was associated with poor distress tolerance, which in turn was related to eating psychopathology. In addition, Haslam, Mountford, Meyer and Waller (2008) concluded that such environments were more common in people who present with bulimic symptoms than other diagnostic groups. Specifically, vomiting was associated with paternal invalidation while the experience of an emotionally controlled, high achieving family style was associated with excessive exercise.

While evidence implicates parental invalidation in eating disorder psychopathology, the variables that mediate this relationship are currently not understood. At present, it is unclear how an invalidating childhood environment could result in a higher chance of developing eating problems later in life. Previous research suggests that individuals with eating disorders experience, cope with and express emotions differently to controls (e.g. Meyer, Waller & Waters, 1998; Whiteside et al., 2007). One particular aspect of emotional functioning that has been studied in relation to eating disorders is an individual's attitude towards emotional expression. In a nonclinical sample, Meyer, Leung, Barry & DeFeo (2010) reported that those women who had high levels of eating, shape, and weight concern believed that displaying emotions was a sign of weakness. Those with high levels of weight concern were also likely to

believe that they should keep their emotions under control and that others might reject them if they displayed emotions. However, it is unclear how these beliefs originate. It could be possible that such attitudes towards emotional expression could develop as a result of an invalidating childhood environment, where emotions are invalidated and rejected by caregivers.

This study aims to replicate and extend previous research that has found a relationship between invalidating childhood environment and adult eating disorder symptoms (Haslam et al., 2008). It is hypothesised that there will be a positive relationship between invalidating childhood environment and adult eating disorder symptoms. In addition, it aims to replicate and extend previous research that has found a relationship between attitude towards emotional expression and eating disorder related attitudes (Meyer et al., 2010). It is hypothesised that there will be a positive relationship between negative attitude towards emotional expression and eating disorder related attitudes. Finally, it aims to extend the above research by investigating attitude towards emotional expression as a mediator of the relationship between invalidating childhood environments and adult eating disorder related attitudes. It is hypothesised that a negative attitude towards emotional expression will be a mediate of this relationship.

## Method

### Participants

The participants were 200 women, with a mean age of 21 years (SD 3.7, range 18 - 54) and a mean self reported BMI of 21.7 (SD 2.93, range 15 – 36). Participants were student volunteers, recruited through University lectures and email distribution lists.

### Measures and procedure

The study was granted ethical approval by Loughborough University Research Ethics Committee. Participants completed three psychological measures after reading an information sheet and giving their informed consent.

1.) The Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994)

The EDE-Q is a 38 item self-report version of the interview based Eating Disorders Examination. It measures four aspects of eating disorders psychopathology; restraint, eating concern, body shape concern, and body weight concern. It also measures behaviours such as being eating and self-induced vomiting. It addresses the respondents' current state, focusing on the last 4 weeks. High scores on the EDE-Q indicate more pathological eating attitudes and behaviours. The EDE-Q has been used extensively in non-clinical populations (e.g. Haslam et al., 2008; Meyer et al., 2010). Mond et al (2004) is the only study exploring predictive validity,

and the researchers found that the EDE-Q had acceptable validity when used to detect community cases of clinically significant eating disorders. Results have indicated excellent internal consistency and 2-week test-retest reliability for the four subscales of the EDE-Q (Luce & Crowther, 1999). In the current study, the Cronbach's alpha values were (restraint = .98, weight concern = .75, eating concern = .98, shape concern = .81), demonstrating good internal consistency.

2.) The Attitudes towards Emotional Expression Scale (AEE; Joseph, Williams, Irwing, & Cammock, 1994)

The AEE is a 20 item self-report measure that measures 4 intercorrelated underlying factors: the belief that the expression of emotions is a sign of weakness (weakness); the belief that emotions should be kept under control (control); the belief that other people will reject expressed emotions (social); and the tendency to keep emotions to oneself (non-expression). Answers are rated on a 5-point likert scale (1= strongly disagree, 5 = strongly agree) with higher scores indicating a more negative attitude towards the expression of emotions. The AEE is considered reliable and valid (Laghai & Joseph, 2000) and has been used in both clinical (Meyer et al., 2010) and non-clinical groups (Laghai & Joseph, 2000). In the current study, the subscales of the AEE had Cronbach's alpha values of .76 (sign of weakness), .65 (behavioural style), .68 (control), and .64 (social rejection).

3.) The Invalidating Childhood Environment Scale (ICES; Mountford et al., 2007)

The ICES is an 18 item self report measure of an individual's childhood environment. Fourteen of its items assess specific maternal and paternal behaviours, where participants are given statements about their parents (e.g. My parents would become angry if I disagreed with them). Participants are then asked to use a 5-point Likert scale (1 = never; 5 = all the time) to rate their experience with each parent up to the age of 18 years. Higher scores represent higher levels of perceived parental invalidation. It has been found that the paternal invalidation and maternal invalidation subscales have good levels of internal consistency (Mountford et al., 2007). In the current sample, both maternal and paternal invalidation had a Cronbach's alpha of .98, indicating excellent internal consistency. Four final items assess broad pictures of family style during childhood, which were proposed by Linehan (1993). Three of these represent invalidating environment styles (typical, perfect and chaotic) and one is a supportive environment style (validating). In a typical family, the focus is on achievement and controlling one's emotions. In a perfect family, everything may appear perfect on the surface, and children are expected not to show upset, fear or anger. In a chaotic family, parents are often unavailable

either physically or emotionally, due to mental health problems or financial problems. In this kind of family environment the child is often left to fend for themselves, and expressing the need for support is met with anger. Finally, in a validating family the child's emotions are acknowledged and responded to in an appropriate way, with encouragement or reprimands. As before, participants are asked to rate these four descriptions using a 5-point Likert scale (1=not like my family; 5=like my family all of the time).

**Data analysis**

The scores on the EDEQ and AEE were not normally distributed, therefore nonparametric analyses were performed where possible. All tests were one-tailed, in keeping with the directional hypotheses. Spearman's rank correlations were used to explore initial relationships between ICES, AEE and EDE-Q subscale scores. Mediation was considered appropriate as inspections of the residuals indicated normal distributions, homoscedasticity and no multicolleniarity (Bowerman & O'Connell, 1990; Field, 2005; Myers, 1990). The mediation models were tested in a number of steps using Baron and Kenny's (1986) procedure. This procedure is described in more detail in chapter 5. In order to test the first hypothesis of this study, the relationship between invalidating childhood environments and eating attitudes was tested using regression analysis. Next, the relationship between invalidating childhood environments and attitudes towards emotional expression was tested. In order to test the second hypothesis, the relationship between attitudes towards emotional expression and eating attitudes was measured. Finally in order to test the third hypothesis, the relationship between invalidating childhood environments and eating attitudes was measured, whilst controlling for attitudes towards emotional expression. Both full and partial mediation models were tested. Full mediation exists when the relationship between the variables becomes non-significant when the mediator is controlled. Partial mediation was tested using a Sobel test and exists when the strength of the relationship between the variables decreases but remains significant when the mediator is controlled.

**Results**

Characteristics of the sample

The mean scores on the psychological measures are shown in Table 6.1. The scores for the EDE-Q and AEE are comparable with other nonclinical groups (Mond, Hay, Rodgers, Owen & Beumont, 2004; Meyer et al., 2010) however there are no nonclinical means available for the ICES.

Table 6.1. Characteristics of the sample

| EDEQ scales | Mean (SD) |
|---|---|
| Restraint | 1.54 (1.49) |
| Weight concern | 2.22 (1.57) |
| Eating concern | 0.9 (1.08) |
| Shape concern | 2.31 (1.57) |
| AEE scales | |
| Weakness | 10.23 (3.27) |
| Non-expression | 11.70 (3.35) |
| Control | 12.19 (3.53) |
| Social | 12.82 (2.69) |
| ICES scales | |
| Maternal invalidation | 2.33 (0.26) |
| Paternal invalidation | 2.40 (0.34) |
| Chaotic | 1.41 (0.89) |
| Validating | 4.21 (1.12) |
| Perfect | 1.39 (0.76) |
| Typical | 2.10 (1.13). |

EDEQ – eating disorder examination questionnaire
AEE – attitudes towards emotional expression
ICES – invalidating childhood environment scale

Association between eating disorder related attitudes, attitudes towards emotional expression and invalidating childhood environments

Table 2 shows the results of the correlational analyses employed to explore the relationships between ICES, AEE and EDEQ subscales. In keeping with the first hypotheses, there was a significant, positive association between maternal and paternal invalidation and eating concern. In keeping with the second hypothesis, there was a significant, positive association between eating concern and all AEE subscales. In addition, there was a significant, positive relationship between restraint and non expression of emotions. Weight concern was significantly positively correlated with paternal invalidation and all AEE subscales. There was a significant, positive relationship between shape concern and all AEE subscales. Associations between parental invalidation and EDEQ subscales were different to the results of Haslam et al, (2008), as no correlations were found in their study, which used a clinical population. Associations between AEE and EDEQ subscales are similar to those of Meyer at al., (2010) however non-expression was not significantly correlated with EDEQ subscales in their study.

Table 6.2. Spearmans one-tailed correlations between ICES, AEE and EDEQ subscales

| ICES scales | Restraint | Eating concern | Weight concern | Shape concern |
|---|---|---|---|---|
| Maternal invalidation | -.026 | .128* | .061 | .054 |
| Paternal invalidation | .112 | .169** | .177** | .107 |
| AEE scales | | | | |
| Sign of weakness | .075 | .272** | .247** | .236** |
| Non-expression | .212** | .275** | .298** | .227** |
| Control | .089 | .171** | .179** | .188** |
| Social rejection | .016 | .156* | .142* | .156* |

* p < 0.05 ** p < 0.01
ICES – invalidating childhood environment scale
AEE – attitudes towards emotional expression
EDEQ – eating disorder examination questionnaire

Attitude towards emotional expression as mediators between invalidating childhood environments and eating concern

According to Baron and Kenny (1986), full mediation is evident if: (1) the independent variable predicts the dependent variable, (2) the independent variable predicts the mediator, (3) the mediator predicts the dependent variable, and (4) the independent variable no longer significantly predicts the dependent variable when entered into a regression with the mediator. Partial mediation is present when the strength of the relationship between the variables decreases but remains significant when the mediator is controlled.

A series of mediational models were used to evaluate whether attitudes towards emotional expression mediated the relationship between invalidating childhood environment and adult eating attitudes. Mediations were conducted and found to be non significant with restraint, weight concern and shape concern as the dependent variable. The hypothesised mediation models were not significant with non-expression of emotions, the belief that emotional expression will lead to social rejection, and the behaviour of emotional control as the mediating variable. As indicated in Table 3, believing that expressing emotions are a sign of weakness fully mediated the relationship between maternal invalidation and eating concern. However, viewing emotional expression as a sign of weakness failed to mediate the relationship between paternal invalidation and eating concern; Sobel test results were not significant, suggesting that there was no mediating relationship evident.

Table 6.3. Unstandardised beta coefficients (*b*) for the mediation models between parental invalidation, attitudes towards emotional expression and eating concern

| Independent variable | Maternal invalidation | Paternal invalidation |
|---|---|---|
| Mediator | Sign of weakness | Sign of weakness |
| Dependent variable | Eating concern | Eating concern |
| Step 1: Regression using parental invalidation to predict eating concern | 0.17* | 0.20** |
| Step 2: Regression using parental invalidation to predict the attitudes towards emotional expression | 0.14* | 0.14* |
| Step 3: Regression using attitudes towards emotional expression to predict eating concern | 0.23** | 0.23** |
| Step 4: Regression using parental invalidation and attitudes towards emotional expression to predict eating concern | | |
| Parental invalidation | 0.14 | 0.17*[a] |
| Attitudes towards emotional expression | 0.14** | 0.20** |

* $p < 0.05$ ** $p < 0.01$

[a] Sobel test assessed that partial mediation was not significant

**Discussion**

The current study aimed to examine the link between invalidating childhood environments and eating disorder related attitudes and to determine whether these links are mediated by attitudes towards emotional expression. In keeping with the first hypothesis, the results replicate findings that an invalidating childhood environment is associated with adult eating disorder psychopathology (Haslam et al., 2008). However while Haslam et al, (2008) found that invalidating childhood environments were not associated with eating disorder related attitudes in a clinical population, the present study found that positive associations were present in a non clinical population. In addition, this study replicates previous findings that a negative attitude towards emotional expression is associated with eating concern (Meyer et al., 2010), as predicted in the second hypothesis. The results of this study extend previous findings by indicating that a negative attitude towards emotional expression fully mediates the relationship between maternal childhood invalidation and adult eating concern, in keeping with the third hypothesis.

Previously the potential mechanism by which maternal invalidation influences eating disorder symptoms has been poorly understood, and the significant mediation model reported here begins to explore potential pathways of influence between the experience of an invalidating mother and eating concern. These findings support a potential cognitive model where those individuals who experienced a mother who does not validate their emotional expression are more likely to view emotional expression as a sign of weakness. When a child's emotions are ignored or met with punishment by the mother, the child potentially learns to view their emotions as incorrect, and learns to control them in order to avoid punishment or rejection (Linehan, 1993). As a result, they may be less able to label and cope with negative emotions. This in turn, could lead to or exacerbate existing eating disorder related attitudes, specifically eating concerns. As eating-disordered behaviours are likely to manifest when an individual is experiencing negative emotional states (Grilo, Shiffman & Carter – Campbell, 1998; Vanderlinden et al., 2001; Waters, Hill & Waller, 2001), the inability to express or cope with such states can lead to or exacerbate symptoms (Corstophine, 2006). According to Meyer, Leung, Barry and DeFeo (2010), such negative attitudes towards emotional expression are worsened by the characteristic rigid and dichotomous thinking in women with eating disorders.

This study has explored a potentially useful model. However the cross sectional and retrospective design of the current study means that although mediation has been found, the study cannot address the question of causal relationships between the phenomena explored. It also remains unclear why other aspects of negative attitude towards emotional expression did not mediate the relationship between maternal invalidation and eating concern. For example, while viewing emotional expression as a sign of weakness mediated this relationship, the belief that emotions should be controlled, the belief that if you express emotions others will reject you, and the behaviour of not expressing emotions, did not play a mediating role. Future research could explore these differences, as well as addressing why maternal invalidation was a mediator but paternal invalidation was not. It could be that mothers' validation plays a larger role as they are usually the primary caregiver (Sroufe, 1988).

Additionally, it is well-documented that women with eating disorders have difficulty in reporting their experiences accurately (e.g., Swan & Andrews, 2003). In particular, it is reported that it is difficult for those with depressive symptoms to retrieve autobiographical memories (Evans et al., 1992; Goddard Dritschel, & Burton, 1996; Goddard et al., 1997; Svaldi et al., In Press). See study 3 for a more in depth discussion of autobiographical memories and how they could influence the reported experiences of those with eating disorders. As depression is closely linked with eating disorders, it is considered likely that it is difficult for those with eating

disorders to retrieve these memories, and therefore report them accurately. The discussion section of Chapter 5 explains this in more detail. This is particularly relevant for studies employing the ICES, as the measure requires individuals to recall experiences from their childhood. Whilst the current findings make an important first step, future research requires a longitudinal design to clarify the causality in any such relationships. The current study did not examine gender differences as the small number of males in the original sample led to their exclusion. However, future investigation of gender-specific experiences of invalidating childhood environments and their effects on eating disorder related attitudes would be of interest. The low level of eating disorder behaviours in the sample precluded analysis by behaviour, which future research could address.

In conclusion, the results of the current study suggest that addressing attitudes towards emotional expression among individuals with eating disordered attitudes could provide a potential way of enhancing treatment efficacy. Challenging negative attitudes towards emotional expression could help facilitate the acceptance of emotions and enable the individual to learn more healthy emotion regulation strategies (Waller, Corstophine, & Mountford, 2007). However, these associations require replication in a both non-clinical and clinical groups before firm conclusions can be drawn regarding implications for treatment.

# Chapter 7

# The experience of interpersonal problems in bulimic disorders

## Study 5

# 7. The experience of interpersonal problems in bulimic disorders: A qualitative study

**Introduction to the chapter**

This chapter describes the first qualitative study of this thesis. The aim of this chapter is to investigate the interpersonal functioning of individuals with bulimic disorders employing qualitative methodology. This thesis therefore uses triangulation of methods in investigating the interpersonal functioning of those with eating disorders.

The work previously described in Chapters 3, 4 and 5 showed that women with high levels of eating disorder related attitudes and behaviours experience maladaptive interpersonal functioning. There is a wealth of research that assesses the interpersonal functioning of eating disordered individuals (see chapter 1 for a review), however this study is the first to explore patients' own perceptions of their interpersonal lives. Qualitative methods have been employed to explore service user's perspectives on many forms of treatment such as cognitive behavioural therapy (Laberg, Törnkvist, & Andersson, 2001), however studies that ask individuals purely about the experience of their disorder are rare. Despite calls by Vitousek to '[spend more] time listening to the voices of women telling us about their 'authentic lived experience' of the phenomena we seek to explain' (Vitousek, 1997), there is surprisingly little research that asks eating disordered women about the experience of their disorder. Qualitative studies such as this can provide rich information on the experiences of those with eating disorders and also inform the design of future quantitative studies.

## Study 5: The experience of interpersonal problems in bulimic disorders


### Abstract

**Objective:** This study aims to assess patients with bulimic disorders experiences of interpersonal problems pre-treatment. There is a wealth of research that assesses the interpersonal functioning of eating disordered individuals, however this study is the first to explore patients' own perceptions of their interpersonal lives.

**Method:** Following treatment completion, 14 patients with bulimic disorders participated in semi-structured interviews concerning their experience of interpersonal problems. Interviews were transcribed verbatim and analysed using thematic analysis for emergent themes.

**Results:** Participants expressed a range of views on their experience of interpersonal problems, mostly characterised by social avoidance, lack of assertiveness, and the non-expression of emotions.

**Discussion:** Themes support previous literature and support the use of interpersonal psychotherapy as a viable therapeutic approach to the treatment of bulimic disorders.

**Introduction**

There have been several research studies that suggest eating disordered individuals experience greater social difficulties than controls. Research has reported that those with higher levels of eating disorder related attitudes and behaviours are more likely to experience social anxiety (Gilbert and Meyer, 2003; 2005a; 2005b), as well as being more likely to compare their achievements and opinions to that of others (Gilbert and Meyer, 2003).

Social support and social networks have also been studied in eating disordered populations. Grisset and Norvell (1992) found that bulimics reported receiving less emotional and practical support from friends and family. They argue that this inadequate support creates a vulnerability towards developing eating disorder symptoms as a coping mechanism. Eating disordered individuals are also less likely to utilise support from others, particularly due to a negative attitude towards emotional expression (Meyer, Leung, Barry & DeFeo, 2010). In terms of relationship satisfaction, women with eating problems report more discomfort with closeness and have been described to fear intimacy with a partner. (Evans & Wertheim, 1998; Pruitt, Kappius & Gorman, 1992).

Although there is a wealth of evidence supporting the notion that eating disordered populations experience more interpersonal and social problems, this study is the first to explore patients' own perceptions of their interpersonal lives. Qualitative methods have been employed to explore service user's perspectives on many forms of treatment (e.g. La Rie, Noordenbos, Donker & van Further, 2006; Offord, Turner & Cooper, 2006; Reid, Burr, Williams & Hammersley, 2008), however studies that ask individuals purely about the experience of their disorder are rare. Despite calls by Vitousek to '[spend more] time listening to the voices of women telling us about their 'authentic lived experience' of the phenomena we seek to explain' (Vitousek, 1997), there is surprisingly little research that asks eating disordered women about the experience of their disorder.

This study aims to explore the interpersonal experiences of those with bulimic disorders before their treatment began. In doing so, the participants also talk about the experience of their eating disorder symptoms. As it is considered that individuals' accounts are often inconsistent (Potter & Wetherell, 1987), the present study also examines the variations and contradictions between participants' accounts, rather than simply looking for constant themes.

## Method

### Participants

There were 14 female participants aged between 18 and 45, with a mean age of 31.64 years (SD=7.29). Participants were diagnosed with either typical (n=10) or atypical (n=4) bulimia nervosa (ICD-10; WHO, 1992) at their assessment before commencing treatment. Any uncertainty about participant diagnosis was resolved through multidisciplinary team discussion. Participants underwent IPT-BNm at Leicester Eating Disorder Service once a week on average. All patients were bingeing and purging daily at the start of therapy. Two patients were not engaging in self induced vomiting but were restricting for long periods of time. Two were exercising excessively (5 hours per week or more), and none were taking laxatives. Length of illness ranged from 1 to 25 years.

### Recruitment process

Ethical approval for this study was obtained from Nottingham NHS Research Ethics Committee 1 in conjunction with study 6. While study 5 and study 6 are presented separately, the two research questions were combined in one interview. Participants were invited to take part in an interview when approaching the end of therapy, and were told that this study would help develop the researchers' understanding of IPT and enable the improvement of the therapy in the future. Participants were recruited in a number of ways from the service. The researcher encouraged therapists to inform patients about the study at session 15. If patients expressed a wish to hear more about the study, a meeting was arranged with the researcher where the study was explained and the information sheet given. The patients were given the option of having 24 hours to decide on their participation and a date for the interview was then arranged. Whilst patients were encouraged to take part by their therapists, they were made aware that they could decline or withdraw at any time without consequences on their standard of care. In some cases, therapists did not inform patients about the study. In these cases, the researcher wrote to the patient explaining the study, with a copy of the information sheet and a reply slip should the patient wish to take part. The diagram below indicates the total number of participants informed about the study and the proportion that were recruited, and lost, through each process.

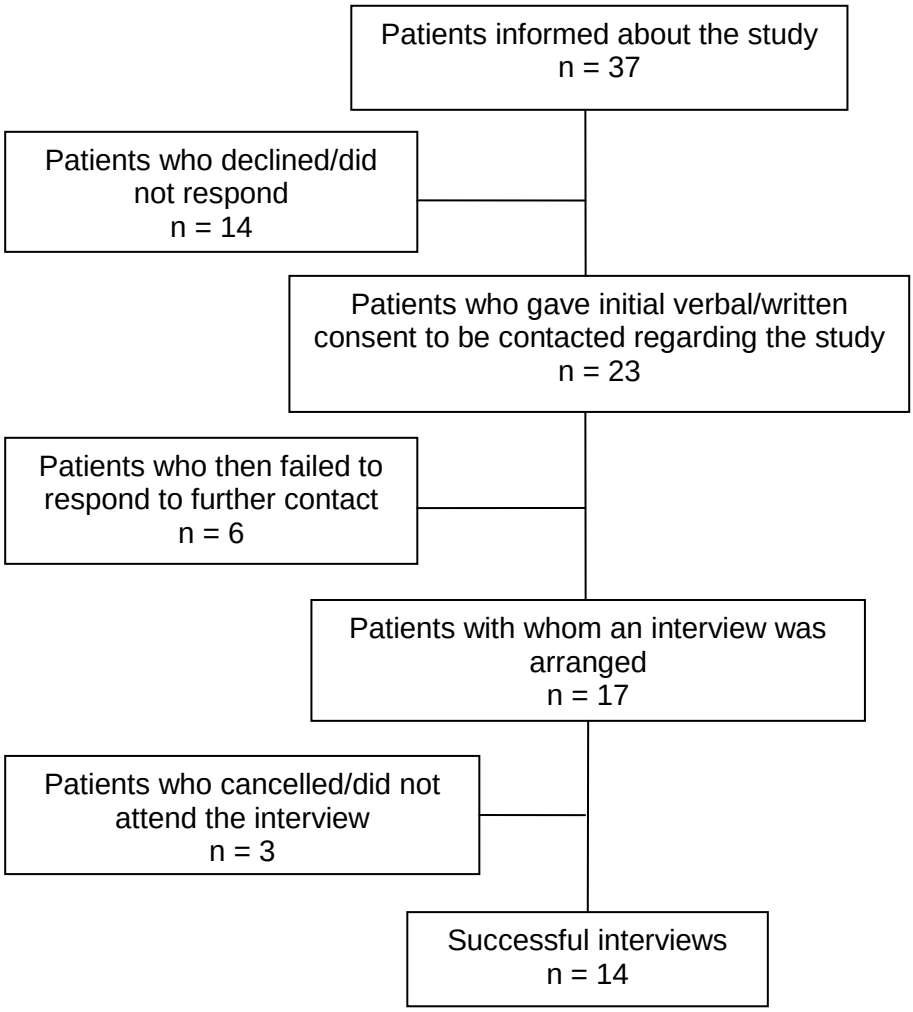


Figure 7.1. The recruitment process and dropout

Procedure

Once therapy had finished, all participants who expressed an interest in taking part read and signed an information-consent form. Whilst patients were encouraged to take part by their therapists, they were made aware that they could decline or withdraw at any time without consequences on their standard of care. Participants were assured that they would not be identifiable in research reports. Interviews took place at the service in a private therapy room and were conducted by the author, lasting between 45 and 60 minutes. Approximately half of the interview focused on this study while the other half focused on the interview schedule of study 6. Open ended semi-structured questions were used in a flexible way, some being omitted when considered inappropriate, and some elaborated on. The semi-structured interview schedule is shown in figure 7.2. Whilst avoiding closed or leading questions the interviewer did adopt a position of 'talking back' to the interviewee (Griffin, 1990). A two-way dialogue was developed through the interview questions and the participant's responses.

Table 7.2. Interview schedule

| **Topic** | **Content** |
|---|---|
| Patients experiences of their eating disorder before commencing therapy | **Open question:** Can you tell me what your eating was like for you before therapy began?<br>**Prompts:**<br>• What were your eating disorder symptoms like before therapy began?<br>• What was your mood like before therapy? |
| Patients experiences of interpersonal functioning before treatment began | **Open question:** Can you tell me what life was like for you before therapy began?<br>**Prompts:**<br>• What were your relationships like before therapy?<br>• What were your close relationships like?<br>• What was your day to day life like before therapy?<br>• How did you feel in social situations before therapy?<br>• What were your relationships with your family/partner/friends/work colleagues like? |

Data analysis

Interviews were transcribed verbatim by the author to a level which only captured the words used and some basic features of the delivery of the talk, for example large pauses or changes in pitch. Data was then analysed using thematic analysis, 'a method for identifying, analysing and reporting patterns (themes) within data' according to Braun and Clarke (2006). Thematic analysis focuses on identifying themes in experiences and behaviours. According to Taylor and Bogdan (1989), themes are defined as units derived from patterns such as 'conversation topics, vocabulary, recurring activities, meanings, feelings, or folk sayings and proverbs'. First, patterns of experiences which emerge from direct quotes or paraphrasing ideas within the data are listed (Aronson, 1994). Once all the interviews have been analysed in this way, the next step is to identify all data across the transcripts and categorise them in relation to the patterns. This categorisation leads to the emergence of sub-themes. Through extensive studying of the emerging themes, a comprehensive picture of the participants collective experience is formed (Aronson, 1994). While the participants' statements mean little in isolation, studying how their ideas fit together creates meaning. The final step of the analysis involves building a justification for choosing the themes that emerged from the data, which is achieved by revisiting the research literature. Through this process, the researcher develops a story line and the previous literature becomes interwoven with the findings. The result is a deeper understanding of the experiences, motivations, behaviours and attitudes of the interviewees.

## Quality Checks

In quantitative research, validity and reliability are key criteria for assessing the quality of research. However, most qualitative researchers do not use these criteria in their research as they assume that the researcher is separate from the research and can act in an objective, impartial way that does not affect measurement. In qualitative research, the researcher is very much a part of the research process, and their views on the results are subjective. The use of criteria for assessing the quality of qualitative research is controversial (see Willig, 2001 for a discussion), and there is no consensus on which to use. However, there are several commonly used quality checks which have been employed in this thesis.

### Independent scrutiny of analysis

One strategy for increasing the reliability of the analyses is independent scrutiny of the analysis. Two of the individual transcripts were analysed by an independent qualitative researcher who was selected on the basis of knowledge of the methodology. The 'expert' researcher coded them and these codes were compared and contrasted with the original codes and themes. It is important to note that this approach is not about asking someone else to confirm that codes are 'correct', but it can help researchers reflect on the process and help them consider codes and themes that might have been overlooked or interpreted in different ways.

### Audit trail

According to Lincoln and Guba (1985), audit trails are one of the principal techniques for establishing the 'confirmability' of qualitative findings. They suggested that the researcher should record their decisions and the analytical processes of their research as it is progressing so that an auditor could study these notes and establish that themes did not simply 'emerge' from the data, but were found by some logical analytical process. In this thesis, the researcher kept a diary throughout the interviews and the analysis stage of the study. This diary details decisions that were made throughout the study such as the naming of themes and the categorisation of subthemes. The use of an audit trail, like all attempts at checking the quality of qualitative research, is still debated. Given the unique interpretive relationship that each qualitative researcher has with their data, an auditor following the audit trail will not necessarily uncover the same findings (Sandelowski 1998).

**Results**

Codes were identified representing the individual's perceptions of their eating disorder before treatment began, as well as their interpersonal problems. Using the constant comparison technique, these codes were used to identify themes that emerged within sections of the semi structured interviews. Figure 7.3 summarises the main themes derived from the interviews.

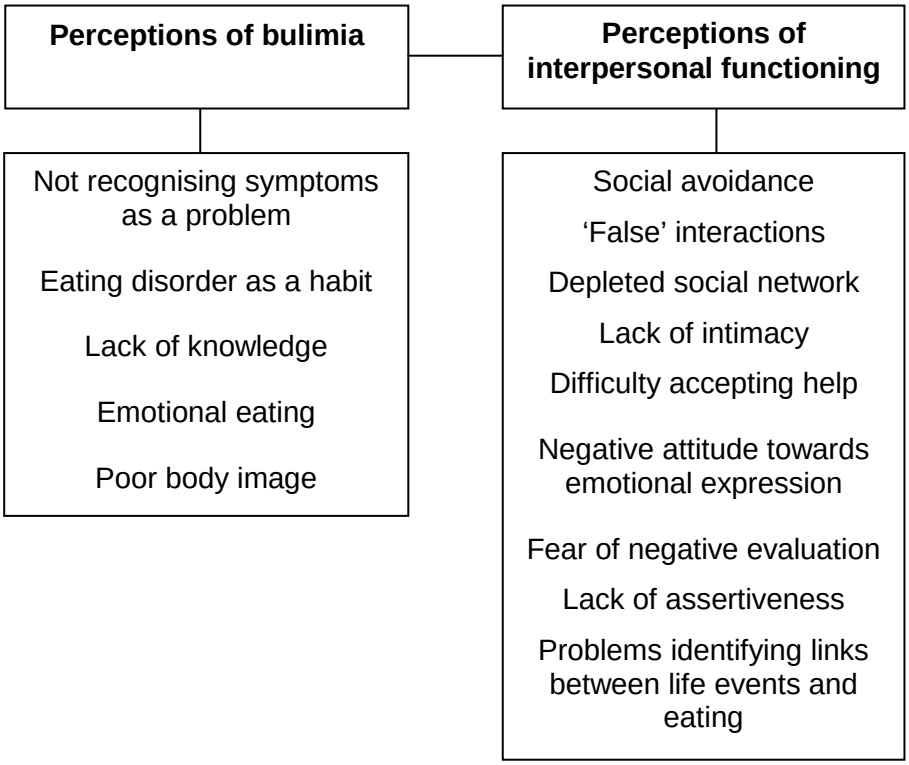


Figure 7.3. Perceptions of bulimia and interpersonal functioning based on qualitative interviews (n = 14).

Perceptions of bulimia

Participants consistently reported that before commencing treatment they thought that their eating attitudes and behaviour were normal, or simply 'bad dieting'. Patients describe feeling that their symptoms were not worthy of treatment, especially in comparison with patients with AN.

*'I didn't recognise that I had a problem, I just thought I was crap at dieting. I thought at first that my problem didn't deserve treatment. Eating a few cheese sandwiches at night, I suppose isn't as bad as the really extreme eating disorders.'* (13)

Most respondents reported that they viewed their eating disorder as a habitual process, one that could not be controlled and had a 'mind of its own'. It could be that this led them to be less likely to challenge eating disordered thoughts and behaviours.

*'I sort of blamed it on itself instead of looking at the stuff that actually led me to do it. I just sort of saw it as self-perpetuating.'* (12)

Patients described a lack of understanding of nutrition and weight regulation. They discussed a lack of knowledge around the way in which the body works regarding food, for example understanding that restriction will lead to a binge, that 'normal' eating will not lead to weight gain, or that the body works to maintain a certain weight.

*'...my philosophy was to put off eating for as long as possible, and it's taken a long time and a lot of working conversations to get to the point of understanding that was actually increasing the chances of me bingeing rather than reducing it.'* (7)

In terms of coping, participants reported that they relied on food as a coping mechanism when negative situations occurred. They described being unable to use more healthy strategies to cope with distress.

*'But a lot of the time I would just, if I went for long periods and then all of a sudden I'd come back home and the children were fighting or something, that would be a good excuse to go and binge.' (9)*

Finally, patients described feeling unhappy with the way they look, both in terms of shape and other aspects of appearance. Some of these views were extreme, for example one individual felt her appearance made other people feel physically sick.

*'I never feel particularly good about myself or how I look, but sometimes I think 'oh I feel ok today', other days I feel really really like I'll go out and people will see me and feel physically sick.'* (10)

<u>Perceptions of interpersonal functioning</u>

<u>Social avoidance</u>

Interviewees described going to great lengths to avoid people and situations where interactions with people were necessary. This social avoidance applied to all kinds of situation, from interactions with family, friends, romantic partners and colleagues.

'..*when I got in from work it would be 'have you had a good day' but then after my dinner I'd go to my room so I didn't really see anyone and if I could get out of having a conversation with someone I would.'* (3)

One patient described going to great lengths to avoid seeing her family, including her young daughter.

*' (I would) physically absent myself and not spend much time at home….and not get involved with Amy*, not play games with her.*' (7)

Interview data revealed that participants didn't just avoid seeing friends and family, but also reduced the amount that they had to interact with people in general.

*'I guess I had set my life up so that I didn't have to see people and when I did I didn't really have to talk to them. So, for example, at work I would try to go into the office as little as possible and work at home instead, and when I did have to go in I would just get on with my work and avoid talking to anyone I didn't have to.'* (1)

This social avoidance was particularly relevant when the situation also involved food, for example meals out with friends.

*'I think there was so much that I didn't do on this restricting thing, birthday meals and things like that. I wouldn't do that. I kind of shut myself away, and became more and more insular, because I didn't go out when everyone else was going out for a meal, because I didn't want to eat. Even though I would sit at home on my own and eat more.'* (13)

<u>Fear of negative evaluation</u>

Participants expressed that they often worried about what other people thought of them. This was relevant to both physical appearance.

*'….'there's that hideous one'. That's how I perceive what other people think.'* (10) and personality '*I have anxiety around how much my friends like me. Which I try to overcome by thinking about times that they go out of their way for me and that kind of thing.'* (12)

This fear of negative evaluation from others appeared to play a part in the individuals' reluctance to socialise.

*'If I did go out I'd just worry about what everyone was thinking about me. I hate not being liked, I was always like if I say that what will they think, and I didn't really enjoy socialising it was more of a chore.'* (3)

<u>'False' interactions</u>

Not all interviewees reported social avoidance however. Two individuals reported that they went out often, and were competent in social situations. However, they stated that they felt they were not being genuine or 'real' in these interactions.

*'I guess I also disliked and hated myself so much at that time that I felt I had to pretend to be someone else.'* (11)

Several respondents reported feeling that they were acting differently to how they felt, mostly to conceal the eating disorder from others.

*'I guess I also felt that when I did interact with people I was putting on an act of some kind, and so these weren't 'real' interactions anyway..... I was pretending everything was fine when it wasn't.'* (1)

Therefore, while these individuals were socialising, they did not feel satisfied with these interactions and their relationships lacked intimacy.

*'I'm quite a sociable person. I'm very flighty, I can do the superficial kissing on the cheek thing quite well. What I find hard is really letting someone in close and them getting to know me on a more intimate level, I'm wary of people on general.'* (9)

Depleted social network

This reported social avoidance suggests that the bulimia played a part in reducing the individuals' social network, as they were less likely to socialise with others, and to keep in contact with friends and family. It appears that interviewees did not have many sources of social support.

*'I did actually realise how poor my support network was, when I thought about it.'* (9)

In those that had sufficient social support networks, there was a sense that the individuals chose not to utilise the support that was available to them. Patients found it hard to ask others for help in times of need.

*'I have got supportive friends and I know that if I ever did have a problem I could give them a call and have a chat. But I just don't.* (10)

Difficulty accepting help

Participants also described being unable to accept help when it was offered.

*'I suppose it's hard because I'm used to doing everything on my own, I am quite hard on myself and try to get things right, but if you don't have the help it's hard.'* (4) Perfectionistic traits were described by the interviewees. *'I have to succeed at things and I have to be the best at things. And erm, not the best as in better than other people but as in meeting my own standards.'* (12)

It could be that this inability to ask for or accept help is linked with the individuals' high levels of perfectionism.

*'I've kind of learnt that I'm somebody who wants things to look as perfect as they can be to other people, so it would very much be a matter of if something's upset me, pretending that it hasn't upset me, and not dealing with it'.* (5)

Lack of intimacy

Interview data revealed that participants' existing relationships with significant others lacked intimacy and communication. This was most often reported in relation to the participants' partner.

*'My natural instinct is to withdraw and to cut myself off ...'* (7) but was also reported in family relationships. *'With my mum there's some tricky times between us. And avoiding communication is something that we do, or I do, and she doesn't know how to make it easy to communicate with her.'* (12)

This lack of intimacy could be partly due to the interviewees' negative attitude towards emotional expression. Patients reported that they rarely talked about their emotions, and felt that expressing their emotions was a sign of weakness and could lead to social rejection. This was particularly the case for sharing and talking about bulimic symptoms, which were often kept a secret.

*'Only about three of them (friends) know I have an eating problem, because I don't want people to feel sorry for me or approach me in different ways'* (10)

As a result of this non-expression of their feelings and issues, problems often went unaddressed, which exacerbated symptoms.

*'…because I have a tendency just to stick them into the back of my mind and not think about them and just try to keep going. Whereas I realise that not dealing with that, at least to some extent was making me more depressed or more low.'* (7)

Lack of assertiveness

Similarly, interviewees felt that they lacked the assertiveness skills required to address problems in their relationships.

*'I'm not a confrontational person so I find it difficult to stand up for myself. I would just take the blame, even though I know I wasn't in the wrong.'* (8)

Some patients reported that as they did not address problems as they came up, they were more likely to bottle up their feelings and then could be aggressive towards others.

*'I'll just go along with what most people want and that makes it difficult for them because then there comes a crunch for me where they've overstepped the mark and there's no signal of it, and I'm off. That's enough, and they're shocked and there's a big fall out.'* (2)

Negative attitude towards emotional expression

One participant described how she would take her feelings out on others, who were not necessarily the cause of the problem. It appears that having an unhealthy attitude towards emotional expression and not having the assertiveness skills to address interpersonal problems can further exacerbate relationship problems.

*'…so it would very much be a matter of if something's upset me, pretending that it hasn't upset me, and not dealing with it. And sometimes that has meant that I've taken it out on the people who are close to me, and have rowed with my mum or my dad or my brothers or my husband, somebody like that. So, I might come home at the end of the day feeling upset or angry about something, and I haven't dealt with that during the day or in the situation that it's happened in. It's come out then when I'm more relaxed in the evening and I've taken it out on them.'* (5)

Problems identifying links between life events and eating

Finally, interviewees reported that before treatment they lacked insight into the links between events that happened in their lives and their eating disorder symptoms.

*'I wouldn't make those links myself because I wasn't talking about it to anyone'* (3)

Patients also describe not thinking about why they might want to binge before carrying the binge out.

*'I think before it was getting to nine at nine and I'd think I'm really hungry, I'll have a sandwich, and then that would become two sandwiches then three sandwiches. Whereas now I think, well I can't be hungry, I've eaten really well during the day, what is it that's making me feel hungry now, because it's not hunger it's something else.'*

**Discussion**

This study explored bulimic patients' perceptions of their eating disorder symptoms and their interpersonal functioning before their treatment began. The participants were able to recall, at least in part, what their life was like before they started IPT-BNm. Interviews revealed a number of aspects of the experience of bulimia and its associated interpersonal problems. As would be expected, patients used food as a coping mechanism in distressing situations, and found it hard to identify alternative strategies. Participants believed that at the beginning of their treatment

they did not have an eating problem, and they saw their bulimia as self-perpetuating. Both of these factors could lead to reluctance to engage in treatment (Crisp, 1980; Vitousek & Watson, 1998). They also reported a lack of understanding of nutrition and weight regulation principles that could potentially help them to break the binge-purge cycle. In addition they reported that their body image was unhealthy.

In terms of interpersonal functioning, a wide range of problems were reported. Retrospectively, participants were able to identify that they avoided and were fearful of social situations, partly due to fear of negative evaluation from others. This supports the findings of previous quantitative research (Gilbert & Meyer, 2003; Gilbert & Meyer, 2005a; Gilbert & Meyer, 2005b; Hinrichsen, Waller, & Wright, 2001). Those that had no problems socialising felt that their interactions were not genuine and reported feeling as if they were pretending that everything was fine when in fact it wasn't.

As a result of this social avoidance interviewees had a reduced social support network, and chose not to utilise this network in times of need even if they did have sufficient support. This was reported to be associated with a lack of intimacy in significant relationships with others, and the non-expression of emotions. Interviewees described a lack of assertiveness skills, and were more likely to let problems escalate and then be hostile towards others as a result. These results replicate the findings of previous studies which have found that eating disordered individuals have a smaller support network (Tiller et al., 1997; Rorty et al., 1999) which they do not utilise as much (Koo-Loeb et al., 1998), and that they have a more negative view of emotional expression (Geller, Cockell & Hewitt, 2000; Meyer, Leung, Barry & De Feo, 2010). Finally, they reported that at the beginning of therapy they were less able to understand the links between their bulimic symptoms and their life events.

This study is the first to provide insight into the interpersonal experiences of individuals with bulimic disorders. While there have been many quantitative studies of interpersonal functioning in the eating disorders, this is the first to explore patients' own perceptions of their experiences. Data suggests that qualitative methods are appropriate for analysing the experience of eating disorders.

This study has several limitations. Unfortunately no males chose to take part in the study, so their interpersonal problems have not been explored. The sample was restricted to participants in one geographic region, all of whom were receiving treatment. As has been pointed out in previous research (Laberg, et al., 2001; Serpell, Treasure, Teasdale, & Sullivan, 1999), this

qualitative method does not lead to themes that are widely generalisable, particularly when samples are small. Future studies could employ larger populations and employ both qualitative and quantitative measures to assess interpersonal functioning in bulimic disorders. Participants needed to be willing to participate in an interview about their experience of bulimia in order to take part, which by nature excluded participants who did not want to participate in research or who felt too unwell to do so. Participation in the study required patients to recall their experiences from several months ago before treatment began, and their experiences could have changed significantly since this time. However, it is considered necessary to recruit those in therapy, as it would be challenging to recruit those who were not accessing services. In addition, despite efforts to build rapport and engage participants, a single interview may not be as effective in eliciting patients' thoughts and feelings as more prolonged engagement. The researcher had not met the participants before the study commenced, and while this may allow the researcher to be more impartial, the participant was expected to share experiences and thoughts that they have revealed to their therapist gradually over time, or perhaps have not shared at all. Finally, retrospective narratives about life experiences are influenced by the present state of the participant, therefore it is possible that those who were depressed at the time of the interview were less likely to recall their experiences accurately (Burt, Zembar & Niederehe, 1995).

The results of this study support the use of interpersonal psychotherapy for bulimia (Fairburn, 1993) as a valid treatment model. It is important to bear in mind that addressing interpersonal problems such as social avoidance and lack of assertiveness reported by patients in the current study could aid recovery from bulimic disorders.

This study only begins to explore patients' perceptions of their interpersonal problems, further research could explore this in greater detail. Future research into the experiences of patients could also focus more on the possible differences between treated and untreated patients, as the present study only includes those who had sought treatment. Similarly research could aim to recruit non-responders and dropouts as the present study only included those who had reached the end of therapy and therefore were more likely to have benefited.

In conclusion, it appears that individuals with bulimic disorders experience a wide range of interpersonal problems characterised by social anxiety and an unhealthy attitude towards emotional expression. It is important to bear in mind, therefore, that addressing interpersonal problems could aid recovery. The results of this study support the use of interpersonal psychotherapy for bulimia (Fairburn, 1993) as a valid treatment model.

# Chapter 8

# Patients' and therapists' perspectives on interpersonal psychotherapy for bulimic disorders

## Studies 6 and 7

# 8. Patients' and therapists' perspectives on interpersonal psychotherapy for bulimic disorders

---

**Introduction to the chapter**

This chapter describes the second and third qualitative studies of this thesis, which aim to examine patients' and therapists' perspectives on IPT for bulimic disorders respectively. While the preceding studies in this thesis examine the relationship between eating related psychopathology and interpersonal functioning, this chapter explores how eating disorder symptoms and poor interpersonal functioning are treated through interpersonal psychotherapy. Study 6 employed the same participants and procedures used in study 5, and aimed to explore patients' views of IPT-BN, and whether patients' experienced a change in their eating and their interpersonal lives during therapy. At present, there are no qualitative studies addressing patients' views on IPT for bulimia nervosa. However in recent years qualitative methods of assessing service users' perspectives of their disorders and treatment are becoming increasingly employed by researchers. There has been an acknowledgement of the valuable contribution of qualitative studies to therapists understanding of the patient's illness and their recovery. Service user feedback is considered crucial for informing intervention and service development (Rosenvinge & Klusmeier, 2000). Rosenvinge & Klusmeier (2000) argued that patients' views were largely ignored in early eating disorder literature as they were considered to be unreliable due to the symptom denial and failure to recognise the need for treatment in such disorders. Although qualitative studies cannot draw conclusions about the effectiveness of therapy, they can explore patients' and therapists' views in more detail than quantitative methods, and provide insights into areas that require further investigation in future quantitative studies. Asking patient's to share their experiences and perceptions of therapy could lead to further developments to the therapeutic model, and helps inform the deisgn of future quantitative studies which assess outcome. Themes highlighted by patients could bring new information to clinicians on which factors should be measured when assessing the outcome of therapy.

Study 7 explores therapists' perspectives on IPT-BN and the factors they consider to be associated with good and poor outcome. At present, there are no qualitative studies addressing therapists' views on IPT for bulimia nervosa. Research on staff perspectives of IPT could prove useful in understanding how patients improve in general during IPT and the factors that therapists consider to be associated with good and poor outcome. Developing an understanding of these factors could also help design future studies which assess patients' views on therapy.

A version of Study 6 has been submitted as: Haslam, M., Arcelus, J., McDermott, H., Farrow, C., & Meyer, C. (Under consideration). Patient's perspectives on interpersonal psychotherapy for bulimic disorders. *Behaviour Research and Therapy*.

## Studies 6 and 7: Interpersonal psychotherapy: Patients' and therapists' perspectives


### Abstract

**Objective:** Interpersonal psychotherapy (IPT) has been acknowledged as an effective treatment for bulimic disorders. Study 6 aims to examine service users' views on interpersonal psychotherapy for bulimic disorders (typical and atypical), while Study 7 examines therapists' views on the factors associated with good and poor outcome of IPT-BN.

**Method**: Following treatment completion, 14 patients with bulimic disorders participated in semi-structured interviews concerning their experience of IPT-BN. Patients were asked about their views regarding therapy and how it helped or did not help their eating disorder symptoms and interpersonal functioning. Interviews were transcribed verbatim and analysed using thematic analysis for emergent themes. Seven IPT-BN therapists took part in two focus groups which addressed their perceptions of the therapy, and what factors they consider to be associated with good and poor outcome.

**Results**: Patients' feedback was generally positive. While they did not believe that IPT-BN was a 'cure', they reported that therapy helped them to make changes in both their eating and their interpersonal lives. Patients found that advice regarding their eating, including regulation of their diet and the use of food diaries, was an important part of therapy. On the whole, patients experienced a reduction in bulimic behaviours and also reported an improvement in their ability to socialise with others and be more intimate in relationships. Interview data also reveals why patients feel they did or did not benefit from therapy. According to IPT therapists, therapy was considered to have a better outcome if the patient: has or is willing to build a support network; is motivated to change; is able to take on the sick role; is able to take an active role in therapy; does not have a high level of depression; and does not have a chronic eating disorder. Finally, the therapist's and patient's ability to identify a clear interpersonal focus and keep the focus of therapy interpersonal was also related to good outcome according to therapists.

**Discussion:** IPT-BN is considered a beneficial form of therapy by patients who have experienced it. These findings suggest that therapy should focus both on eating and on patients' interpersonal lives. Factors that therapists identified as related to outcome require empirical investigation. Future quantitative studies are required to evaluate the effectiveness of this modified version of the therapy.

**Introduction**

Interpersonal psychotherapy (IPT) is a time limited psychotherapy which concentrates on problems of an interpersonal nature on the premise that psychiatric syndromes occur in a social and interpersonal context. IPT was originally developed for the treatment of depression (Klerman, Weissman, Rounsaville, & Chevron, 1984). The aim of IPT is for the patient to develop their understanding of the links between their symptoms and their current interpersonal problems (Weissman, Markowitz and Klerman, 2000). Patients learn how to address these problems, therefore reducing the severity of their symptoms. IPT attempts to help the patient change the way in which they think, feel and act during interpersonal interactions, and targets problems such as lack of assertiveness and lack of social skills (Arcelus et al., 2009; Weissman, Markowitz and Klerman, 2000).

IPT has been adapted for use in various psychological conditions including bulimia nervosa (BN; Fairburn, 1993; 1997). The rationale of IPT for bulimia (IPT-BN) suggests that those who exhibit bulimic attitudes and behaviours do so in response to interpersonal disturbances such as deficits in social problem solving and role conflicts. In improving the individual's ability to utilise their social support networks and manage these interpersonal deficits, IPT aims to reduce bulimic attitudes and behaviours. IPT-BN was created originally as a control treatment for CBT and therefore any techniques within the therapy that were similar to cognitive behavioural techniques were removed. These clinical trials found that CBT was superior to IPT at the end of treatment however there was no significant difference between the two treatments outcomes at follow up (Agras et al, 2000). IPT was therefore recognised by NICE guidelines as one of few effective psychotherapies for BN and bulimia like disorders, although patients with BN should be informed that it can take between 8-12 months to achieve comparable results (NICE, 2004).

IPT has also been compared to cognitive behavioural therapy (CBT), which has demonstrated equally positive results in both individual and group settings (Fairburn, 1997; Fairburn, Jones, Peveler, Hope, & O'Connor, 1993; Fairburn et al.,1991; Roth & Ross, 1988; Wilfley et al., 1993; Wilfley et al., 2002). Despite the finding that IPT is as effective as CBT in the long term, it is not known how the therapy achieves its beneficial effects. Fairburn (1997) claims it is likely to be through several mechanisms. Firstly, IPT helps patients to overcome well established interpersonal difficulties, for example when focusing on interpersonal 'role transitions' this can be helpful for those patients who have missed out on the interpersonal challenges of early adulthood as a result of their eating disorder. Secondly, Fairburn (1997) claims that IPT can open up new interpersonal opportunities and as a result patients learn to rely more on interpersonal functioning for self evaluation instead of focusing wholly on eating,

weight and shape. Finally, IPT gives patients a sense that they are capable of influencing their interpersonal lives and therefore may lessen their need to control their eating, weight and shape

Arcelus et al. (2009) have argued that the original IPT-BN lost some of some of IPT's principle components which could prove useful to therapy, for example psycho-education, directive techniques, problem solving, modelling role play and decision analysis. The modified version of the therapy (Whight et al., 2010) adds these components back into the therapy. This IPT consists of 16 weekly sessions, split into 4 initial sessions, 10 middle sessions and 2 final sessions. The stages involved are shown in Table 8.1.

Table 8.1. The stages of IPT-BN

| Sessions | Aims |
|---|---|
| Initial sessions (1-4) | • To identify the interpersonal context that maintains the eating disorder. Various tools are used in order to formulate the patients problems, including a timeline where interpersonal events are plotted alongside symptoms, and an interpersonal inventory where a network of the patients significant others is drawn.<br>• During the final initial session, a focus area is chosen from one of four possible areas: complicated grief, interpersonal role disputes, interpersonal role transitions, and interpersonal deficits. The chosen focus area forms the basis of the work in the middle sessions. |
| Middle sessions (5-14) | • To continue to identify the relationship between the interpersonal focus area and the eating disorder symptoms, which are monitored each session.<br>• The patient learns to recognise this relationship and makes changes to their interpersonal interactions. The middle sessions are where the behavioural change techniques that were excluded from IPT-BNm occur. |
| Final sessions (15-16) | • To discuss the ending of therapy along with relapse prevention techniques where the patient is encouraged to monitor their symptoms after therapy has ended. This is in contrast to IPT-BN, where there is no monitoring of symptoms past the initial sessions. |

IPT for patients with BN has evolved over the years and many eating disorder services offering IPT for these patients use the techniques originally described in the first IPT manual (Klerman, Weissman, Rounsaville, & Chevron, 1984). At present, the efficacy of the current versions remains unexplored. It is currently unknown how or why therapy helps bulimic patients. Similarly the factors associated with outcome of IPT-BN are yet to be investigated. There is a wealth of existing research that examines the factors associated with outcome of CBT however. These factors include low self-esteem and poor interpersonal relationships (Baell & Wertheim, 1992; Bjorck, Clinton, Sohlberg, & Norring, 2007; Fairburn, Kirk, O'Connor, Anastasiades, & Cooper). Therapist 'drift' away from the focus of therapy has also been implicated in treatment

outcome in previous research (Stringer, Waller & Meyer, under consideration; Waller, 2008), and is thought to happen most often as a result of a crisis occurring (e.g. Schulte & Eifert, 2002). Motivation to change is considered necessary for therapy to be effective (e.g. Treasure et al., 1999). Finally, high levels of depression (Bossert, Schmeolz, Wiegand, Junker & Krieg, 1992; Bulik, Sullivan, Joyce, Carter & McIntosh, 1998; Davis, Olmsted & Rockert, 1992; Mitchell, 1991) and duration of the eating disorder (e.g. Keel, Mitchell, Miller, Davis & Crow, 1999) are implicated in the outcome of psychological therapies.

It is well recognised that service user feedback is crucial for informing intervention and service development. For example, Rosenvinge and Klusmeier (2000) argue that patients' views were largely ignored in early eating disorder literature as they were considered to be unreliable due to the symptom denial and failure to recognise the need for treatment. In recent years, there has been an acknowledgement of the valuable contribution of qualitative studies to clinicians' understanding of the patients' illness and their recovery (Bell, 2003; Hepworth, 1994; Le Grange & Gelman, 1998; Rosenvinge & Klusmeier, 2000). As such, qualitative studies that inform practice are essential. Unfortunately, at present there are no such studies that explore IPT for patients with BN, from patients' or therapists' perspectives.

There are several studies that have assessed eating disordered patients' views regarding treatments using qualitative methods, including cognitive-behavioural group therapy (Laberg, Törnkvist, & Andersson, 2001); cognitive training (Whitney, Easter, & Tchanturia, 2008); family therapy (Joyce, 2008) general outpatient services (Reid, Burr, Williams & Hammersley, 2008) and inpatient treatment (Offord, Turner & Cooper, 2006). According to Bell (2003), qualitative research that explores service users' perspectives of treatment can provide a greater understanding of recovery, as it reveals the individuals' meanings and experience of the treatment process. Although qualitative studies cannot draw conclusions about the effectiveness of therapy, they can explore patients' and therapists' views in more detail than quantitative methods, and provide insights into areas that require further investigation. Study 6 aims to assess service users' views on their experience of IPT. First, it aims to assess whether therapy helps patients, and if so in what ways, particularly focusing on how patients perceive their interpersonal relationships and eating disorder symptoms before and after treatment. Secondly, it aims to explore how patients perceive the treatment and which aspects were experienced as being positive and/or negative.

At present, there are also no qualitative studies addressing therapists' views on IPT for bulimia nervosa. Studies that examine therapists' views on psychological therapies is lacking in

the current research literature. However, given that the therapist plays a crucial role in the therapeutic process, exploring their perspectives on the factors associated with outcome is of considerable benefit. It is thought that clinicians apply their knowledge of the multiple factors that influence outcomes in an implicit way in order to decide quickly on a plan of care for the individual (Benner, 2001; Jasper, 1994). According to Flemming (1991) this is called 'clinical reasoning' – the many ways in which a practitioner thinks about and interprets an idea, which becomes incorporated into their knowledge, problem solving and decision making about a situation. It appears therefore, that clinicians have a wealth of knowledge regarding the effectiveness of therapy which at present remains untapped. Study 7 aims to assess therapists' views on the effectiveness of IPT-BN. It explores the factors that therapists believe to be associated with outcome. Developing an understanding of which factors both patients and therapists believe to be related to how beneficial therapy is helps clinicians build an understanding of which patients will do better than others during IPT-BN. An appreciation of which factors are associated with poor outcome will allow clinicians to tailor therapy to tackle such issues, or identify when an alternative therapy is more appropriate.

## Study 6: Patients' perspectives on interpersonal psychotherapy for bulimic disorders: A qualitative study

### Method

#### Participants

The sample consisted of 14 female participants aged between 18 and 45 years (mean 31.64, SD = 7.29). These participants were the same as those employed in study 5. Participants were diagnosed with either typical (n=10) or atypical (n=4) bulimia nervosa (ICD-10; WHO, 1992) at their assessment before commencing treatment. Participants underwent IPT once a week on average for 16 weeks. All patients were bingeing and purging daily at the start of therapy. Length of illness to date ranged from 1 to 25 years.

#### Recruitment process

Ethical approval for this study was obtained from Nottingham NHS Research Ethics Committee 1 in conjunction with study 5. While study 5 and study 6 are presented separately, the two research questions were combined in one interview. Participants were invited to take part in an interview when approaching the end of therapy, and were informed regarding the study's aims and objectives. Participants were recruited in a variety of ways from the service. Some were informed about the study during session 15 and those interested in participating

were invited to meet the researcher. The study was then fully explained and the participant information sheet provided. These patients were given the option of having 24 hours to decide on their participation and a date for the interview was subsequently arranged. Patients were made aware that they could decline or withdraw from the study at any time without consequences on their standard of care. In other cases, the researcher wrote to the patient independently of their therapist. In such cases, an explanation of the study was provided along with a copy of the information sheet and a reply slip should the patient wish to take part. All data has been anonymised, and where participants have mentioned names these names have been changed by the researcher. See chapter 7 for a flowchart displaying the recruitment process and dropout.

Procedure

Following recruitment, in-depth semi-structured interviews were undertaken, lasting between 45 and 60 minutes each, and recorded with the knowledge and consent of participants. Approximately half of the interview focused on this study while the other half focused on the interview schedule of study 5. Interviews took place at the eating disorders service in a private therapy room and all interviews were conducted by the same researcher, who was trained in interview techniques. Open ended semi-structured questions were used in a flexible way, some being omitted when considered inappropriate, and some expanded upon (Smith, 1995). Whilst avoiding closed or leading questions, the interviewer did adopt a position of 'talking back' to the interviewee (Griffin, 1990). A two-way dialogue was developed through the interview questions and the participant's responses. The interview schedule is displayed in Table 9.1.

Table 8.2. Interview schedule

| **Topic** | **Content** |
|---|---|
| Patients experiences since finishing therapy | **Open question:** Can you tell me about what life is like for you now that therapy has finished?<br>**Prompts:**<br>• *What are your eating disorder symptoms like now?*<br>• *What are your relationships like now?*<br>• *How do you feel in social situations now?*<br>• *What is your day to day life like now?*<br>• *What is your mood like now?* |
| Patients opinions about the effectiveness of therapy | **Open question**: Do you feel therapy has helped you at all?<br>**Prompts:**<br>• *Do you think that any improvements you've seen have been because of therapy?*<br>• *In what ways has therapy helped you with these things?*<br>• *If you don't think therapy has helped you at all, then why?* |
| Good and bad points of therapy | **Open question**: What did you like/dislike about therapy?<br>**Prompts:**<br>• *Can you remember any points in therapy when you experienced an improvement/ set back?*<br>• *Can you remember any activities or discussions you found particularly helpful/unhelpful?*<br>• *Is there anything you found difficult during therapy?*<br>• *Do you have any suggestions for improving the therapy for the future?*<br>• *Have you experienced a different therapy in the past and if so how would you compare the two?* |

Data analysis

The interviews were transcribed verbatim by the author and data was then analysed using thematic analysis, 'a method for identifying, analysing and reporting patterns (themes) within data' (Braun & Clarke, 2006). According to Taylor and Bogdan (1989), themes are defined as units derived from patterns such as "conversation topics, vocabulary, recurring activities, meanings, feelings, or folk sayings and proverbs". First, patterns of experiences which emerge from direct quotes or paraphrasing ideas within the data were listed (Aronson, 1994). Through extensive studying of the emerging themes, a comprehensive picture of the participants collective experience was formed (Aronson, 1994). While the participants' statements mean little in isolation, studying how their ideas fit together creates meaning. The final step involves revisiting the research literature to build a justification for choosing the themes that emerged from the data. The result is a deeper understanding of the experiences, motivations, behaviours and attitudes of the interviewees, with previous literature interwoven with the findings.

Quality checks

A sample of the individual transcripts were coded by an independent researcher, trained in qualitative methods. These codes were compared and contrasted with the original codes and themes. During discussions on the coding, no discrepancies were reported between the two researchers. An audit trail was also conducted, detailing how the final themes originated from the data.

**Results**

**Positive outcomes of IPT in relation to eating**

There are several ways in which interviewees' eating improved during IPT-BN(m) as described in Table 9.3. Participants reported a reduction in bulimic behaviours, an improvement in the structure and regularity of their meals, a better understanding of nutrition and a better relationship with food at the end of therapy. Finally, they felt better able to identify alternative coping mechanisms when tempted to binge or purge.

The majority of patients reported that they experienced a reduction in bulimic behaviours. However, most reported that such behaviours were still present but to a lesser degree after therapy. Participants expressed that they felt happy with this reduction in behaviours, and understood that their symptoms were not going to disappear in sixteen weeks.

*"Erm, it was five, six times a day, each time there was purging afterwards, and over exercising constantly..... now it's a case of bingeing three/four times a week, which is a hell of a lot less than I used to" (Participant 10)*

However, two individuals reported that they saw no improvement in their bulimic behaviours but acknowledged other areas of improvement.

*"No, the bingeing and vomiting is still very much with me and a problem, but we definitely made headway in other areas. And relationships, working through and improving my relationship with my husband, I can see that would have a beneficial effect on my eating disorder.*" (Participant 3)

Table 8.3. Positive outcomes of IPT in relation to eating attitudes and behaviours

| Theme | Description | Data |
|---|---|---|
| A reduction in bulimic behaviours | The majority of patients reported a reduction in bulimic behaviours as a result of therapy. | *"So now it's down to between once and twice a day, and over the course of therapy there's been a few days where I haven't binged at all, and that hasn't happened for, I dunno, years." (7)* |
| Meal structure | Patients described being less likely to go long periods of time without food and were therefore less likely to binge. Patients reported an improvement in the regularity of their meals and snacks. Gradual increase in portion sizes and inclusion of previously banned food groups appears to lead to the introduction of three meals and three snacks a day. | *"Well what we do now is I have planned snacks, so I have a snack between breakfast and lunch and a snack between lunch and tea. And I'll have supper, so a piece of toast or a couple of crackers or biscuits or something before I go to bed…. That's what I do to avoid that situation where I'm not hungry and I haven't eaten for a while." (5)* |
| Better coping | Patients reported they were more able to identify the triggers of eating disordered behaviours and alternative coping mechanisms rather than relying on eating disordered behaviours when a difficult situation arises. Patients acknowledge that sometimes the bulimic behaviour does still occur despite their attempt to find alternative coping mechanisms. However, they still feel better able to address these issues even if it doesn't stop the behaviour every time. | *"And I do exercise a lot and that calms me down….Which is something that I haven't really addressed before, before therapy I wouldn't even think of what a coping mechanism was, I would just ignore that. But now I am thinking about it and thinking what can I do other than that.' (9)*<br><br>*"I'm more aware that I'm feeling things. So, erm, even though sometimes it doesn't stop me from bingeing and purging, I'm more aware of why I'm doing it, whether its boredom, or I'm actually upset about something. And when I'm upset about something, thinking about what it is I'm upset about. Whereas before I didn't really think about it at all." (12)* |
| Positive relationship with food | Data suggest that therapy helped patients change their relationship with food. In particular, the individual's life becomes less focused around eating, as they develop a more positive relationship with food, where it no longer manages their emotions. As a result of this, patients feel more in control of their lives. | *"Maybe just being more positive about food, because it was quite negative before. It sounds strange because its only food but that was one of the things about therapy, learning to enjoy it again." (4)* |
| A better understanding of nutrition | Patients expressed that therapy helped them to develop a better understanding of basic nutrition and how their bodies respond when they are starved of food for long periods of time. They describe beginning to see that their way of eating was unhealthy and counterproductive to weight loss. | *"...my philosophy was to put off eating for as long as possible, and it's taken a long time and a lot of working conversations to get to the point of understanding that was actually increasing the chances of me bingeing rather than reducing it." (7)* |

**Positive outcomes of IPT in relation to interpersonal functioning**

Six themes were identified regarding the positive outcomes of IPT in terms of interpersonal functioning (see Table 9.3 for a summary). Participants reported that therapy had helped them to reintegrate socially, in all domains (friends, family, and work colleagues). As a result of this, the individual was more likely to have a larger social network towards the end of therapy, and thus had more sources of support in times of need. Participants expressed that they had learnt to be more genuine and open both in old relationships and new ones. This was due to a) a more healthy attitude towards emotional expression, b) feeling better able to ask for help, c) having more self-compassion and d) a reduction in fear of negative evaluation from others. In addition, participants reported that they had experienced an increase in assertiveness skills during therapy, which further improved the quality of their relationships as they felt better able to address problems. Therapy also led to a reduction in irritability as participants reported that they felt more in control of their mood as their diet improved. Where maladaptive relationships with others were considered unsalvageable, participants felt better able to recognise this and make steps to dissolve such relationships. Finally, therapy helped participants to develop a better understanding of the links between their relationship problems and their eating, for example where arguments with others can facilitate a binge eating episode.

Table 8.4. Positive outcomes of IPT in relation to interpersonal functioning

| Theme | Description | Data |
|---|---|---|
| Social reintegration | Therapy helped patients to form new relationships and to spend more time with existing friends, family, partners and colleagues. This led to a larger support network for the patient. | *"Now, as a direct consequence of the IPT, I actively seek out contact with other people and in the course of therapy made several good friends at work who I keep in contact with.... I have arranged meetings with several people I went to school with and haven't seen for about 15 years!" (1)*<br>*"She (the therapist) wanted me to basically integrate myself a lot more with people around me rather than just shutting myself away which I went through a period of doing…That's improved so much." (10)* |
| Learning to be open/genuine in relationships | Patients felt more able to be honest and genuine in social situations within existing and new relationships. This theme is split | *"…as part of the therapy my therapist tried to encourage me to be myself and not to feel like I had to put on an act when I was with other people, which I was able to in conjunction with the other techniques and the medication." (1)* |
| a) A more healthy attitude towards emotional expression | Patients felt less like to be judged for expressing their emotions towards the end of therapy. In particular, patients describe being more likely to share their eating disorder problems. | *"I mean I'm more open, even with my family and my friends, I'm more open with things that are bothering me, whereas before I've thought I don't want to worry them and I don't want to upset them, and if things were upsetting or worrying me I would have tried to keep them to myself." (5)*<br>*"Yeah I think it was more of a secret. Once I started coming here I started telling more people. And now I think I've just got to make sure I keep doing it without anyone prompting me" (13)* |
| b) Asking for help | Patients describe feeling more able to ask others for help when it was needed. | *"I've just realised you can't do things on your own, and I don't feel so bad about asking for help." (4)*<br>*"I did actually realise how poor my support network was, when I thought about it. I'm making very very small steps to rectify that, and calling on a few extra people to help out now and then." (9)* |
| c) More self compassion | Therapy helped patients to be more compassionate towards themselves and allow themselves to make mistakes. | *"I think I realised that....it's ok not to get things right first time." (4)*<br>*"I just address things a little bit more differently and realise that I have limitations like everybody else." (9)* |
| d) Reduction in fear of negative evaluation | Patients were more likely to ask for help as they reported that they didn't worry so much about what others think. | *"Oh, I'm out all the time now. Never in. It's not that I don't care what people think but I think, well this is me, so like me for me." (3)* |
| Increase in assertiveness | Patients feel better able to set boundaries with other people and stand up for themselves than they did at the beginning of therapy. As a result of this, they felt more able to deal with relationship problems that had previously been dealt with inappropriately, or left unaddressed. | *"People just think they can ring me up and ask me to do whatever, and that I don't do anything I just sit on my bum all day. They just think oh Katrina will do it. So I learnt how to say no to people in a nice way and managing it so I don't get stressed and it leads to bingeing. We spent quite a bit of time on that." (11)*<br>*"…if I do get angry or upset about something, I can say 'actually when that happened it upset me', and that's not right there in the moment that its happened, but maybe going back later in a calm way when I'm not feeling upset or angry, or whatever it was that I was feeling, to kind of deal with it then in a more constructive way." (5)* |

| | | |
|---|---|---|
| Reduction in irritability | Patients felt they were less likely to be aggressive towards other people as their diet improved their mood. | *"Because of the chaotic eating, it might fulfil the criteria of trying to reduce my intake and stop me getting fat but what it does definitely do is make you a lot more volatile mood wise. Because I find that if I let myself get hungry and I feel faint, I'm very irritable. So I've reduced the instances of that." (7)* |
| Relationship dissolution | Sometimes patients felt their relationships were unhealthy and therapy helped them dissolve them and find alternatives. | *"It's been a change of lifestyle but a good change of lifestyle. It's nice. Before I was running behind them and trying to be like them, but they weren't there for me." (14)* |
| Understanding the links between interpersonal functioning and eating | Patients reported that they were better able to understand the links between their life events involving other people and their eating towards the end of therapy. | *"I can definitely see when I'm in a low mood everything is worse, the eating is worse and generally and I'm falling out with everyone around me, but then when I'm in a better frame of mind and I'm positive, I'm not focusing on food at all, I'm so engrossed in the other things that its better because I'm happy." (2)* |

## Why therapy helped

Participants were asked to identify factors about therapy that they felt helped them to improve their eating disorder symptoms and/or interpersonal functioning. The themes resulting from the interview data have been divided into those which are related to the content of therapy, the form of therapy, and therapy techniques.

## Content of the therapy

### Focus on relationships

Participants viewed the focus on relationships as helpful. They reported that tackling their relationship problems made a significant difference to their lives. For example, one interviewee acknowledged that focusing on relationships made her think about the role her eating disorder played in her life.

*"The focus on relationships really made me realise that the eating disorder was like a person in my life that I had a long-term, but unhealthy relationship with. That made me realise that other people could also fulfil that role and in a way that was fun and much, much more rewarding and healthy."* (Participant 1)

Participants reported that they benefited from advice given to them about how to improve specific relationships and situations. One individual spoke to her therapist about problems with her husband.

*"…the division of labour in the house is very traditional, my husband gets up and goes out in the garden, I end up doing all the washing and the ironing. The therapist suggested that I go out in the garden with him, so I'll say I'll go out in the garden with you for an hour if you come back in the house with me for an hour. And it works, it stops me from getting resentful and he feels that I'm helping him in the garden. So that's worked out."* (Participant 6)

### Focus on food

Despite relationships being a focus of IPT-BN(m), interviewees also reported that they felt that addressing the eating disorder symptoms directly was also necessary.

*"I think it was really helpful that the therapist and I really straight away tackled the eating. I was happy with that and that things were happening as they should be and that things were more normal than they were. That was useful to me because I needed to have that under control before I did anything else. That was my main concern really."* (Participant 5)

Psychoeducation

Participants expressed that they benefited from the psychoeducational elements of therapy.

*"I thought it was good when the therapist described the spring theory. Like maintain your weight, like whatever you do to it, your body will always maintain the same natural weight, that's what it's supposed to do. I think that became really quite clear. If I still eat normal amounts, I should stay the same. Actually yes I can have a packed lunch at lunch time and remain the way I am, that was like a lightbulb moment, it was quite illuminating."* (Participant 9)

**Form**

Structure of therapy

Interviewees felt that attending therapy every week provided them with a structure and meant that they had to think about their eating problem.

*"I think, just the fact that I was coming regularly and talking about things, and being able to make instant connections was very helpful."* (Participant 9)

*"...it's a bit like weight watchers, it's a focus every week, you can't avoid the situation, you have to get on and do something about it."* (Participant 2)

Being able to talk

The majority of interviewees felt that simply having someone to talk to helped them address their problems.

*"Well, sometimes she wouldn't necessarily say anything back, but just being able to offload, and be able to actually talk to someone."* (Participant 4)

Therapy as an accepting environment

Participants described feeling like their therapist accepted their thoughts and behaviours, and did not judge them.

*"I suppose as well because she was a stranger she was easy to talk to, it wasn't at first because I had these preconceptions that she was going to judge me, but as soon as I talked to her and realised she's not, and that 'when you realise she's working with you not against you, then you're actually willing to discuss your problems and things that affect you."* (Participant 4)

*"Erm. James was really good because he as a person is easy to talk to and he has a way of saying things that doesn't make you feel bad about them. But I don't know how much of that is him and how much of it is the therapy."* (Participant 12)

Because therapists had an understanding of the eating disorders, participants reported that they felt that they had the expertise required to give them the support they needed.

*"Erm, probably, being able to talk to somebody that understands eating disorders because obviously people think it's just that you want to be thin, they don't understand that it's a control thing."* (Participant 3)

Therapeutic alliance

Having a good relationship with their therapist was considered very important by interviewees.

*"She's not an older lady but she comes across as a mother figure, so it was easy to talk to her."* (Participant 4)

No 'pressure' to change

While participants feel that IPT encouraged them to change their relationship with food and to complete food diaries, they reported that the therapy did not pressure them to change their behaviour too quickly. This was reported as being an effective approach.

*"So rather than them just saying you've got to eat all this, which would have been a bit alarming, it was just introducing a bit at a time. And then that gave me the incentive to think well I don't really fancy an apple now, maybe I'll have a chocolate bar instead."* (Participant 3)

*"It's just that I don't feel as guilty and ashamed about it as I did before IPT. I guess that feeling is part of the illness itself, but it was also something I felt during CBT when I wasn't getting rid of the behaviour."* (Participant 1)

Taking on the 'sick role'

During interpersonal psychotherapy the patient is encouraged to think of their eating disorder as an illness and to allow themselves time to recuperate as they would if they were suffering from a physical illness. Interviewees described how the expression of this to their family and friends helped take the pressure of them.

*"They responded to it quite quickly, I just used Andrea (the therapist) as a bit of a shield, she said I could. I said 'Andrea says I don't have to do that anymore' and it only took a couple of times, it worked a treat! And now they don't pester me quite as much."* (Participant 11)

It also appears that when individuals talk about their therapy to those who are close to them, they can use the therapists' suggestions to facilitate communication.

*"But I have been able to talk to her about things I've done in therapy. And I think.... it's sort of, by talking about the stuff I've talked to James (therapist) about with my mum, I can tell her things without having to say 'You do this' or 'I do this' or 'They do this' but I can say James and me have talked about this happening, without me specifically having to say you do this, this made me feel like this. So yeah it has made communication a bit easier, and I'm going to miss that"* (Participant 12)

**Techniques**

Role play

Discussing and role-playing conversations that individuals were likely to have in the future were also considered beneficial activities.

*"I set up, through the conversations that I'd had with Dr Gill a situation where I had a discussion with Daniel which aired all of those things and that seemed to make it better."* (Participant 2)

The use of food diaries

Food diaries evoked different views from participants. Most interviewees found them challenging and irritating to fill in. However, they viewed them as beneficial for their treatment as they helped them to identify changes in their diet and make links between life events and eating.

*"I really didn't like doing food diaries, I guess because I didn't want to think about it, I felt I was going to be told off for not eating properly. But then in the end it helped because I could look back and realise that, oh actually, I have improved since then. And I think also, it makes you want to eat more because you know you have to record what you've eaten. So for me it was getting into a routine like that, which helped."* (Participant 4)

The use of Challenging ED thoughts and behaviours

Participants felt that having the therapist challenge their thoughts and behaviours helped them to think differently.

*"And she sort of explained to me that what I was doing was really unhealthy and that by making yourself sick you're putting your heart at risk. And she was really quite frank with me, which is what I needed. Sort of, the shock factor. If you've got someone in therapy and they're in this deep dark hole and they think what they're doing is normal, you can't just sit there and say 'awww, bless, bless'. You have to say to them, look what you're doing could kill you. Because you don't realise."* (Participant 10)

**Unresolved issues following IPT**

There were several ways in which participants felt IPT did not help them. Firstly, they reported that they view their eating disorder as an illness that to some extent would be with them for the rest of their lives. In this way they felt that therapy could not 'cure' them. Secondly, patients reported that IPT did not help them address issues with body image. Finally, they felt that due to the short-term nature of IPT there was not time to tackle all relationship problems, and therefore only the most crucial ones were addressed. See table 9.4 for data supporting these themes.

Table 8.5. Issues left unresolved by IPT

| Theme | Description | Data |
|---|---|---|
| ED as a lifelong problem | Interviewees felt that their ED was an illness that would be to some extent with them for the rest of their lives. Most felt they would never be 'cured' as such. | *"I definitely feel much more in control of the eating disorder, rather than it controlling me. However, I do also feel that because it has been such a large part of my life for so long, 15 years, that it will never 'go away', so to speak." (1)*<br>*"I think it has helped but I think it's the beginning of me having to do a lot more work. Like, it's not magically cured me." (12)* |
| Body image | Body image is not addressed during IPT and patients felt their body image issues were therefore left unsolved. | *"I don't feel like I've solved all the problems that are going on in my head. And stuff like body image I have no idea how you would go about it, I can't think of a straightforward way to solve that, and stuff like that that we haven't really covered" (12)* |
| Not all relationships targeted | As interpersonal psychotherapy is time limited, there was not enough time during therapy to address all the individual's relationship problems. Therapy focused on the most important issues. | *"Yeah I mean I've got a very difficult relationship with my mum, I've got an older brother who I don't speak to at all, I mean yeah relationships were addressed, but I think there was more to address if you see what I mean. There was more to it than was discussed and we just didn't have the time to discuss it." (6)*<br>*"I'm much happier with smaller groups, but the idea of going to a party and making small talk with people you don't know... I can't see anything pleasurable in that whatsoever. And I would absolutely use food as a prop in that situation. We didn't get anywhere near as far as tackling that kind of situation. There just wasn't enough time." (7)* |

**Barriers to treatment**

Several themes were identified regarding barriers to treatment, including a lack of motivation to change, passivity, having had an eating disorder for a long time and problems in short term memory. See Table 9.5 for data supporting these themes. The most commonly reported theme was the participants' lack of motivation to change.

*"..this is going to sound awful but I don't have a big desire to stop bingeing. Because eating is something you do everyday regardless, eating and drinking, it's a normal thing."* (Participant 10)

Table 8.6. Barriers to treatment

| Theme | Description | Data |
|---|---|---|
| Lack of motivation to change | Two patients expressed that they didn't have enough of a desire to stop their eating disordered behaviour, and that this affected their ability to make changes to their bulimic eating patterns. | *'I wonder whether underneath, there's a part of me that doesn't want to do it. I quite like living this. But I'm unhappy with it, so that doesn't make sense.' (2)* |
| Passivity | Interestingly, in the interviews with patients who claimed not to have benefited from therapy, more passive language was used, which suggested that the patient saw themselves as having less of a role in therapy. | *'I mean if anybody could just give me something to get rid of it, I'll be joyful.' (2)*<br>*'Oh, I'd like somebody just to have come along and put a vacuum cleaner inside my head and get rid of it all, that would have been lovely.' (9)* |
| Longevity of the eating disorder | Two patients expressed that they felt therapy was not designed for those who had been suffering from an eating disorder for many years. | *' …three quarters of an hour I just don't think is long enough. I mean I've been suffering for 20 years so I think you know, 16 weeks, which may seem a long time, but obviously when you've had it for 20 years it's a very complicated illness.' (6)* |
| Problems in short term memory | One patient who was prescribed antidepressants reported that she found her memory affected the efficacy of the therapy. | *'Because of the medication I find my short term memory is affected quite badly. So sometimes I can go away and think I've had no idea what we've talked about today, or what we've achieved or what we've worked on.' (8)* |

**Discussion**

This study aimed to explore patients' experiences of a modified version of IPT for the treatment of bulimia nervosa. It aimed to explore how patients perceive their interpersonal relationships and eating disorder symptoms before and after treatment, their perceptions of the treatment and the factors associated with positive and negative outcome. The interview data supports the findings of previous quantitative studies that IPT is an effective treatment for bulimic disorders (Agras et al., 2000; Fairburn et al., 1991; Fairburn, Jones, Peveler, Hope & O'Connor, 1993; Fairburn, Kirk, O'Connor, & Cooper, 1986; Wilfley et al., 1993). Patients' problems were not completely cured by therapy, but the majority reported feeling that IPT provided them with the mental tools to manage their problems, both in terms of eating and their interpersonal lives. In relation to eating, improvements included; helping to manage emotions; suggesting alternative coping mechanisms to problematic behaviours; helping to understand the link between life events and eating; introducing a diet structure; dispelling myths about food, and helping readdress the individual's relationship with food. In terms of interpersonal functioning, patients felt they were more able to reintegrate socially, be more open and genuine in relationships, and to recognise when relationships were not healthy and needed ending. They reported an increase in assertiveness, a reduction in irritability and a better understanding of the links between interpersonal functioning and eating.

Patients also considered IPT to be a gentle approach which left them in control, and did not require large diet changes, but instead focused on relationships, which they considered to be tackling the root of the eating disorder. Consistent with previous research (Reid, Burr, Williams & Hammersley, 2008), patients were appreciative of treatment that offered them practical help to change, rather than imposing change upon them. However, patients also felt that the focus on eating was still necessary in treating their eating disorder. While the use of food diaries was acknowledged as difficult, patients saw the benefit of completing them as a tool for recognising their progress throughout therapy. The results do suggest that patients benefit from the re-introduction of a focus on eating during treatment, as well as on relationships.

However, the results suggest that IPT does have limitations in the treatment of eating disorders. Patients felt that their disorder was a lifelong problem and although therapy reduced their bulimic behaviours, they did not perceive the therapy as a 'cure'. They felt that there was not time to address all interpersonal problems during therapy and they also felt that IPT did not address body image. In terms of barriers to treatment, some interviewees identified that their motivation to change had an effect on the success of therapy. Previous literature has reported that motivation deficits are linked to therapy outcome and dropout rates (Geller, Cockell, &

Drab, 2001; Geller, Drab-Hudson, Whisenhunt & Srikameswaran, 2004; Rieger et al., 2000). In addition, those who had had their eating disorder for a long period of time felt that IPT could not help them in the same way as those who had not been ill for very long, although there is no evidence for this. This finding supports the results of previous quantitative studies (e.g. Keel, Mitchell, Miller, Davis & Crow, 1999). It appears then, that therapy could benefit from a motivational component, and that individuals who are low in motivation or have had an eating disorder for many years could benefit from an alternative treatment.

The current study is the first to assess patients' perspectives on IPT for bulimic disorders, and data supports the use of qualitative methods for analysing the therapeutic process of change, as has been found in previous research (e.g. Rennie, 1994). This in-depth qualitative analysis has allowed important aspects of clients' experience to be explored that brief satisfaction questionnaires could not capture. Giving participants the opportunity to talk freely about their experiences provides new, previously undiscovered information to the researcher. Although qualitative research data is still influenced by the researchers preconceived theories (such as the IPT framework in the present study), this effect is less dominating than in quantitative research, as a qualitative interview does not require the researcher to know all the correct questions in order to gain insightful answers (Kvale, 1983).

This study has several limitations. Firstly, as has been pointed out in previous research (e.g. Laberg, et al., 2001; Serpell, Treasure, Teasdale, & Sullivan, 1999), this method does not lead to themes that are widely generalisable, particularly when samples are small. Secondly, this study only included those who completed therapy and therefore are more likely to think positively of IPT. Whilst all patients were invited to take part, patients who dropped out of therapy and were contacted by post did not respond to requests. Future research should attempt to recruit those who were considered to be nonresponders and those who dropped out of therapy. It is important to investigate the perceptions of these individuals in order to help predict which individuals will benefit more from IPT than others, and which may benefit more from an alternative therapy. Thirdly, despite efforts to build rapport and engage participants, a single interview may not be as effective in eliciting patients' thoughts and feelings as more prolonged engagement. The researcher had not met the participants before the study commenced, and while this may allow the researcher to be more impartial, the participant was expected to share experiences and thoughts that they had revealed to their therapist gradually over time, or perhaps not shared at all. In addition, in studies such as these, the interviewer could have been perceived as an ally of the therapist, which would have influenced the issues that patients chose to raise and the resulting themes (Laberg, Törnkvist & Andersson, 2001).

Patients could have felt that the researcher wished to hear that therapy helped them, which could have influenced their answers. Finally, retrospective narratives about life experiences are influenced by the present state of the participant, therefore it is possible that those who were depressed at the time of the interview were less likely to recall their experiences accurately (Burt, Zembar & Niederehe, 1995). Future studies could employ larger populations and employ both qualitative and quantitative measures. The findings of this study are exploratory and will be of interest to practitioners working in this field.

In conclusion, this study explored patients' experiences of IPT and found that on the whole, patients benefited from this therapy. At the end of treatment, while patients' eating problems had not been 'cured', they had mostly experienced a reduction in bulimic symptoms and an improvement in their interpersonal lives. This study also indicates that qualitative methods can be of value to IPT researchers and that results can complement quantitative data. It appears that IPT-BN should include both a focus on eating and relationships in order to treat patients effectively. Future research should consider whether IPT works as well for individuals who have had an eating disorder for many years, and these individuals may benefit from an alternative treatment. Assessing the individual's motivation to change at the beginning of therapy could improve results, and it could be that patients would benefit from a focus on body image. Future quantitative research could further investigate the findings of this study, whilst aiming to include follow up data and patients who dropped out of therapy.

## Study 7: Therapists' perspectives on interpersonal psychotherapy for bulimic disorders: A qualitative study

### Method

#### Participants

Participants were 7 therapists (five females, two males) employed by an eating disorder service, who were trained to deliver a modified version of interpersonal psychotherapy (Whight et al., 2010). There were two clinical nurse therapists, one senior clinical nurse therapist, two occupational therapists, a psychotherapist and a consultant psychiatrist. All participants were IPT accredited therapists and five of the seven participants were supervisors and trainers in IPT. All therapists who were informed about the study volunteered to take part.

#### Procedure

This study was granted ethical approval by a local NHS Research Ethics Committee. Two focus groups were held at the eating disorder service in a private therapy room. The first focus

group had four participants and the second had three. Each focus group lasted for approximately 1.5 hours and was tape recorded. The aim of the focus group was described, and permission for tape-recording was obtained from all participants. The moderator asked open-ended questions from a schedule which was developed to ask therapists concerning the factors associated with outcome of IPT-BN. The focus group schedule was designed to re-focus the discussion if necessary. Apart from presenting the group with foci for discussion and ensuring that conversation remained on the subject of interest, interference with the discussion was kept to a minimum. According to Morgan (1997) this approach aims to create a communication situation which bears close resemblance to "naturally occurring interaction".

Data analysis

Focus groups were transcribed verbatim by the author and data was then analysed using thematic analysis, 'a method for identifying, analysing and reporting patterns (themes) within data' according to Braun and Clarke (2006). According to Taylor and Bogdan (1989), themes are defined as units derived from patterns such as 'conversation topics, vocabulary, recurring activities, meanings, feelings, or folk sayings and proverbs'. First, patterns of experiences which emerge from direct quotes or paraphrasing ideas within the data are listed (Aronson, 1994). Once all the data has been analysed in this way, the next step is to identify data that occurs across the transcripts and categorise them in relation to the patterns. Through extensive studying of the emerging themes, a comprehensive picture of the participants collective experience is formed (Aronson, 1994). Analysing focus group data involves the same method as the analysis of other qualitative data (Kitzinger & Barbour 1999), however the researcher needs to consider the interactions between participants.

## Results

The following are the themes identified from focus group data. Therapists reported many factors that they believed to be associated with good and poor outcome of therapy. Therapy was considered to have a better outcome if the patient has or is willing to build a support network; if the patient is motivated to change, is able to take on the sick role, is able to take an active role in therapy, does not have a high level of depression, and does not have a chronic eating disorder. Finally, the therapist's and patient's ability to identify a clear interpersonal focus and to keep the focus of therapy interpersonal was also related to outcome according to therapists.

The existence or willingness to build a support network

Therapists stated that the therapy requires that the patient either has a current support network or is willing to work on building a new network. Those individuals who have a poor or maladaptive social network which does not support their needs do not do as well during therapy according to therapists.

***'C:** I think we don't get a very large number of people with 'interpersonal deficits', not a huge amount, and I wonder if that's more difficult to make sense of the eating disorder because their networks are very poor and impoverished.'*

***A:** 'From the outset it tries to help the patient activate social networks, and if they don't have them, to build them up, and I think for any psychotherapy, to have people around you that can support you through it, in many ways can help people to manage the therapy. Therapy is more difficult for people who don't have a network.'*

The patient's ability to take an active role in therapy

Therapists report that those patients who are quite passive do not do as well as those who take an active role in therapy and their recovery.

***'B:** I get the sense that the people that don't do very well are the same sort of people that kind of want someone else to fix them. I think I've had a few cases that have gone on to have CBT and eventually when it comes back to them actually doing it...as CBT's progressed, they find that hard as well.*

***A:** If you've got someone who's very depressed I get a sense that they can be very passive, it's much more difficult for them to say they don't agree, or for the therapist to come up with something because the depressed patient will just go with it because they're depressed. Or it can be that they're passive and they expect therapy to come up with it all.'*

Motivation to change

The patient's motivation to change was considered important by therapists in the outcome of therapy. Those patients who want to change and are committed to making such changes are considered more likely to benefit from therapy.

***'A:** The other thing to keep in mind is the ambivalence to change the eating disorder symptoms.*

***C:*** *And I think also what's triggered them coming for therapy, what's triggered them coming to help. Because the people who want to change and want their lives to be different are much more motivated to change and seem to do well.'*

<u>High levels of depression/comorbidity</u>

Therapists reported that if the patient is very depressed they may benefit less from IPT. Therapists report that there is not time in the short term therapy to devote to high levels of depression as well as the eating disorder. Similarly they believe that those with a high level of depression can be more passive and therefore make less commitment to making changes.

**'D:** I think people who are depressed as well-you spend so long trying to get past that, that having time to focus on the eating disorder as well is difficult.

**A:** They might say well you're treating me for X, but I've also got A B C and D wrong as well. I think that brevity of it can be really difficult. If you've got someone who's very depressed I get a sense that they can be very passive, it's much more difficult for them to say they don't agree, or for the therapist to come up with something because the depressed patient will just go with it because they're depressed.'

<u>Taking on the sick role</u>

Participants describe believing that the patient's ability to take on the sick role influences treatment outcome. Although the sick role involves taking a step back from responsibilities and giving yourself time to heal, therapists do not believe that it is a passive role.

***E:*** *'But there's something very important in getting the patient to recognise their problems, and recognising how disabling that can potentially be for them. So during a period of time, it's a limited role within therapy, but to take some of the pressure off themselves, to re-evaluate what's going on in their life, but also then to think about taking responsibility, working on things and make changes and improve their networks, talk to people. So there's that balance between taking responsibility off them temporarily whilst they take responsibility to work on things and try different things in treatment.*

***G:*** *I think if they're willing to take on the sick role and get their network mobilised, that's the main thing.'*

<u>Duration of the eating disorder</u>

Duration of illness was also reported by therapists as relevant to how well the individual does in therapy. Those who have been ill for many years and been through several therapies are

reported to find it very difficult to make changes. One therapist states that those who have been eating disordered for a long time may find it more difficult to accept the sick role.

***'C:** Time does seem to affect how well people take on the sick role. If they've been eating disordered for 20 odd years, one woman I've got at the moment is really finding it hard, she is eventually doing it but it's quite a laborious process.'*

***B:** And if they've had it for a long time, it's like an ingrained pattern, that's their way of being. So it's very difficult for them to change.'*

***C:** And their life is built up around being secretive about their eating. That's what their network is about. So asking them to change that is quite a huge thing.'*

***A:** People who have a long treatment history sometimes don't do as well. I think you know, patients who've had self therapy, CBT, group therapy, DBT. The patients have never been convinced particularly that IPT holds anything new. They don't feel particularly confident that IPT's going to be the one that helps.'*

<u>Clear interpersonal problems identified</u>

Therapists report that occasionally patients find it difficult to make sense of the IPT model, as they might see their illness in a biological way or do not see relationships as relevant to their eating disorder. In these cases, therapists state that it might be beneficial to identify an alternative therapy for the patient.

***'B:** Then there occasionally there are people who just don't see it as relevant at all. And those are the people who might benefit from alternative therapies or whatever. Erm. I mean the interpersonal focus as a way of working with someone makes a lot of sense to me but I think if someone's not getting it at all then it might be very difficult to work with them or do anything.'*

***A:** And I think that can be one of the reasons that therapy is not helpful to them, because it doesn't make sense to them. If it doesn't make sense to the patient then I don't think IPT is very helpful. But that doesn't mean that other kinds of therapy won't be more useful. Because a lot of it is how you view the world isn't it, and your symptoms, and if the patient perhaps has a very organic view of their illness or biological model for it, other therapies might help better. That's why you need to make sure during the assessment that you're working in a way that's meaningful to them, and try to help the patient think of other options.'*

The therapist and patient's ability to keep the focus interpersonal

The interpersonal focus was also considered important by therapists in the outcome of therapy. According to therapists it's easy to get distracted by talking about things that are not interpersonal, and thus therapy can lose its focus. Therapists expressed that one of the challenges of being an IPT therapist was the need to keep the patient focused on the area agreed at the outset of therapy.

*'**F**: What I was thinking is because it's so structured, and you have to keep the patient within that particular area that you doing the inventory of, the timeline, you know, a lot of times they want to tell you everything in one fowl swoop, and you have to keep everything in order, and some patients struggle with that.*

***E**: And you have to keep on redirecting them.*

***F**: And moving them away from what you are going to be talking about at a later stage, because they want so much to get it out there.*

***E**: I think that is one of the hardest things sometimes, to keep patients focused, because you want to attend to them, you want to be empathic, you know. And I think that's one of the hardest things for the patient as well as the therapist. And, but just being aware of that and why that might be happening, you might have got the wrong focus area, it might be just that it's too difficult to talk about.'*

## Discussion

This study aimed to explore therapists' perception of the factors that influence the outcome of IPT for the treatment of bulimic disorders. In doing so, it is the first study of its kind to explore therapists' thoughts about IPT for bulimic disorders and IPT in general. Focus group data revealed that eight factors were identified as related to the outcome of therapy. Therapists believed that patients needed to either possess a support network or be willing to work towards building up such a network. The clear identification of an interpersonal problem was also considered important. It was considered a challenge to keep the focus of therapy interpersonal throughout and the ability to do so was linked to the outcome of therapy. Therapist 'drift' away from the focus of therapy has been implicated in treatment outcome in previous research (Stringer, Waller & Meyer, under consideration; Waller, 2008), and is thought to happen most often as a result of a crisis occurring (e.g. Schulte & Eifert, 2002). It was considered necessary for the patient to be motivated to change and take an active role in therapy, which supports previous findings (e.g. Treasure et al., 1999). Being able to take on the sick role during therapy

was also suggested to be linked to better outcome. Finally, the findings also support previous research which suggests that high levels of depression (Bossert, Schmeolz, Wiegand, Junker & Krieg, 1992; Bulik, Sullivan, Joyce, Carter & McIntosh, 1998; Davis, Olmsted & Rockert, 1992; Mitchell, 1991) and duration of the eating disorder (e.g. Keel, Mitchell, Miller, Davis & Crow, 1999) are implicated in the outcome of psychological therapies.

The current study is the first to assess therapists' perspectives on IPT-BN, and data supports the use of qualitative methods for analysing staff experiences. Giving participants the opportunity to talk freely about their experiences provides new, previously undiscovered information to the researcher. Although qualitative research data is still influenced by the researchers preconceived theories (such as the IPT framework in the present study), this effect is less dominating than in quantitative research, as a qualitative focus group does not require the researcher to know all the correct questions in order to gain insightful answers (Kvale, 1983).

However when analysing focus group data there are methodological issues that need to be considered. According to Sim (1998), it is difficult to infer consensus on a topic from focus group data alone, as views can appear homogenous as a result of conformity of the group rather than a united opinion. Similarly, it is not possible to measure the strength of participant's views across focus groups. Although the presence or absence of themes can be noted, it is not possible to infer the relative strength of views across focus groups. According to Sim (1998, p. 345) these methodological issues mean that it is difficult to generalise focus group data. Social desirability is also a factor to consider in research with staff members as therapists may wish to appear as effective therapists. Although it is important to consider the above factors, focus groups were employed in this study as this method of data collection took less clinical time than individual interviews would. Therapist numbers were also small in this study. However as the modified version of IPT-BN is only practiced in one service, this small sample represents a large proportion of the therapists. All therapists who were asked to take part in the study did so. In conclusion, this study explored therapists' experiences of IPT-BN and found that several factors were suggested to be associated with therapy outcome, however these themes require replication in future quantitative research.

**Chapter conclusions**

This chapter explored patients' and therapists' perspectives on interpersonal psychotherapy for bulimic disorders. IPT-BN is considered a beneficial form of therapy by patients with bulimic disorders. The findings suggest that therapy should focus both on eating and on patients'

interpersonal lives. In terms of barriers to treatment, some interviewees identified that their motivation to change had an effect on the success of therapy. In addition, those who had had their eating disorder for a long period of time felt that IPT-BN could not help them in the same way as those who had not been ill for very long. These findings were replicated in Study 7, as therapists believed that the duration of the eating disorder and motivation to change was linked to outcome. They also reported that psychological 'strength', the existence or willingness to build a support network, therapeutic alliance, the identification of a clear interpersonal focus, the therapists ability to keep the focus of therapy interpersonal, the patient's ability to take an active role in therapy, high levels of depression, and the patient's ability to take on the sick role were important factors. Factors that patients and therapists identified as related to outcome require empirical investigation. Future quantitative studies are required to evaluate the effectiveness of this modified version of the therapy.

# Chapter 9

# General discussion and conclusions

# 9. General discussion and conclusions

## 9.1. Introduction

The aim of this chapter is to present the findings of the present thesis. Firstly, the aims of this thesis are presented, before a summary of the findings in relation to these aims is given. Implications of the findings of this thesis for the understanding and treatment of poor interpersonal functioning in people with ED are examined, and recommendations for future research are made. Finally, the limitations and contributions of this thesis are discussed.

## 9.2. Aims of this thesis

The overall aim of this thesis was to advance the understanding of interpersonal functioning in the eating disorders, both in terms of characteristics and treatment. In order to achieve the overall aim, two main objectives were pursued. The first objective was to examine interpersonal functioning among both eating disordered and control groups in order to develop a preliminary model of interpersonal functioning in relation to the eating disorders. The second objective was to examine the application of a modified version of interpersonal psychotherapy for bulimia, with a particular focus on the perspectives and experiences of patients' and therapists. The aims of each study are presented below:

Aims:

- To identify those aspects of maladaptive interpersonal functioning which are associated with eating disorder related attitudes and behaviours (Study 1)
- To establish whether there are differences in interpersonal problems between eating disorder patients BN and healthy controls (Study 2)
- To establish whether there are differences in interpersonal problem solving skills between an eating disordered and healthy control group (Study 3)
- To investigate the role of a possible cause of poor adult interpersonal functioning – the experience of an invalidating childhood environment (Study 4)
- To explore patients' perceptions of their interpersonal functioning in relation to their eating disorder (Study 5)
- To explore patients' perceptions of interpersonal psychotherapy for bulimic disorders (Study 6)
- To explore therapists' perceptions of interpersonal psychotherapy for bulimic disorders (Study 7)

This thesis employed both quantitative and qualitative methodology to assess interpersonal functioning in individuals with eating disorders and healthy controls. Using both quantitative and qualitative methods to explore interpersonal functioning in the eating disorders will produce 'between-method triangulation' (Denzin, 1989) which is argued to allow the weakness in one method to be compensated for by the strengths of another.

## 9.3. Summary of results

### Study 1: Associations between eating disorder cognitions and interpersonal functioning

The first study of this thesis investigated the association between eating disorder related attitudes and aspects of interpersonal functioning. It had a cross-sectional design and employed measures of eating disorder related attitudes, anxiety and depression, and interpersonal functioning. Eating disorder related attitudes were found to be positively associated with interpersonal problems (being too domineering, exploitable and overly nurturant towards other people), having a negative attitude towards emotional expression, a fear of negative evaluation from others, and an individual's tendency to compare their performance and opinions to others. These associations, apart from those with restraint, remained significant when controlling for depression and anxiety, suggesting that eating disorder related attitudes are related to interpersonal functioning irrespective of the association between interpersonal functioning and anxiety and depression alone.

### Studies 2 and 3: Differences in interpersonal functioning between eating disordered and non-eating disordered women

Study 2 tested the differences in interpersonal problems between women with bulimic disorders and healthy controls. It employed a cross sectional design and used measures of eating disorder attitudes and behaviours and interpersonal problems. Results indicate that women with BN report higher levels of generalised interpersonal problems than nonclinical women. All interpersonal problems were higher in the bulimic group apart from being too open with others. This suggests that women with BN report having poor interpersonal functioning in comparison to control women, which confirms maladaptive interpersonal functioning as one of the important symptom constellations in BN.

Study 3 tested the differences in interpersonal problem solving skills between individuals with high levels of eating disorder related attitudes and behaviours and a nonclinical comparison group. A measure of interpersonal problem solving was employed along with measures of eating disorder related attitudes and behaviours, anxiety and depression. Results indicate that

when women with subclinical eating disorders approach an interpersonal problem scenario they generate fewer means to solve the problem, and these means are both less effective and less specific than the means generated by healthy control women. In this sample, depression and anxiety mediated the relationship between eating disorder cognitions and interpersonal problem solving skills.

**Study 4: Potential predictors of poor interpersonal functioning: The role of invalidating childhood environment**

The origin of interpersonal problems in the context of the eating disorders is yet to be addressed in the research literature. Developing an understanding of how and why maladaptive interpersonal functioning develops could help clinicians begin to understand how these problems could be tackled in therapy. One possible cause of maladaptive interpersonal functioning is the experience of an invalidating childhood environment.

Study 4 of this thesis investigated the relationship between recollections of invalidating childhood environments and eating psychopathology among young women. Adult eating concerns were positively associated with recollections of an invalidating maternal and paternal environment. Specifically, study 4 of this thesis focused on negative attitude towards emotional expression as a possible mediator of the relationship between invalidating childhood environments and adult eating psychopathology. The belief that the expression of emotions is a sign of weakness fully mediated the relationship between childhood maternal invalidation and adult eating concern. Thus, it appears that when a child experiences an invalidating mother, they are more likely to develop maladaptive interpersonal functioning (the belief that emotions should not be expressed as they are a sign of weakness). In turn, this could lead to adult eating concerns. When a child's emotions are ignored or met with punishment by the mother, the child potentially learns to view their emotions as incorrect, and learns to control them in order to avoid punishment or rejection. As a result, they may be less able to label and cope with their negative emotions. This in turn, could lead to or exacerbate existing eating disorder related attitudes, specifically eating concern.

Therefore, it appears that invalidating childhood environments could play a role in the development of maladaptive interpersonal functioning. Previously the potential mechanism by which maternal invalidation influences eating disorder symptoms has been poorly understood, and the significant mediation model reported here begins to explore potential pathways of influence between the experience of an invalidating mother and eating concern. These findings

support a potential cognitive model where those individuals who experienced an invalidating mother are more likely to view emotional expression as a sign of weakness.

**Study 5: The experience of interpersonal problems in bulimic disorders**

In study 5, women with bulimic disorders described their experiences of their interpersonal functioning in relation to their eating disorder. In terms of interpersonal functioning, a wide range of problems were reported. Retrospectively, participants were able to identify that they avoided and were fearful of social situations, partly due to fear of negative evaluation from others. Those that had no problems socialising felt that their interactions were not genuine and reported feeling as if they were pretending that everything was fine when in fact it wasn't. As a result of this social avoidance interviewees had a reduced social support network, and chose not to utilise this network in times of need even if they did have sufficient support. This was reported to be associated with a lack of intimacy in significant relationships with others, and the non-expression of emotions. Interviewees described a lack of assertiveness skills, and were more likely to let problems escalate and then be hostile towards others as a result. Finally, they reported that at the beginning of therapy they were less able to understand the links between their bulimic symptoms and their life events.

**Studies 6 and 7: The experience of interpersonal psychotherapy for bulimic disorders, patients' and therapists' perspectives**

Study 6 explored patients' perspectives on their experience of interpersonal psychotherapy for bulimic disorders. Interview data revealed that patients' feedback was generally positive. While they did not believe that IPT-BN was a 'cure', they reported that therapy helped them to make changes in both their eating and their interpersonal lives. Patients found that advice regarding their eating, including regulation of their diet and the use of food diaries was an important part of therapy. On the whole, patients experienced a reduction in bulimic behaviours and also an improvement in their ability to socialise with others and be more intimate in relationships. However, patients felt that their disorder was a lifelong problem and although therapy reduced their bulimic behaviours, they did not perceive the therapy as a 'cure'. They felt that there was not time to address all interpersonal problems during therapy and they also felt that IPT-BN did not address body image. In terms of barriers to treatment, some interviewees identified that their motivation to change had an effect on the success of therapy. In addition, those who had had their eating disorder for a long period of time felt that IPT-BN could not help them in the same way as those who had not been ill for very long.

Study 7 explored therapists' perspectives on interpersonal psychotherapy. Therapists play a critical part in facilitating therapeutic change and considering therapists' professional opinion on when therapy works and when it doesn't is a much under used resource of knowledge. Therefore therapists' experiences and opinions of therapy could be of great benefit in improving our knowledge surrounding the therapeutic process of change. Data revealed several key factors that therapists believe are associated with outcome. These included psychological 'strength', the existence or willingness to build a support network, therapeutic alliance, the identification of a clear interpersonal focus, the therapists ability to keep the focus of therapy interpersonal, the patient's ability to take an active role in therapy, their motivation to change, high levels of depression, the patient's ability to take on the sick role, and finally the duration of the eating disorder.

## 9.4. Contribution of results to the understanding of interpersonal functioning and interpersonal psychotherapy for eating disorders

### 9.4.1. Interpersonal functioning in the eating disorders

The results of studies 1, 2 and 5 confirm the existing links between eating disorder symptomatology and interpersonal functioning that had been discussed in the systematic review (see chapter 1). Figure 9.1 shows the preliminary model of interpersonal functioning in the eating disorders proposed in chapter 1. The model is a visual representation of the findings of this review, and therefore allows the reader to see the links in the existing literature, and also where more research needs to be conducted to build further links. Study 1 found the following interpersonal factors to be associated with eating disorder attitudes: being too domineering, vindictive, cold, socially avoidant, non-assertive, exploitable, overly nurturant and intrusive towards others; having a negative attitude towards emotional expression; comparing oneself to others, and fearing negative evaluation. These associations have been previously noted (e.g. Gilbert & Meyer, 2003; Hopwood, Clarke & Perez, 2009), however the associations found in study 1 were identified after controlling for depression and anxiety. This study was conducted with a nonclinical population however, whereas study 2 employed an eating disorder group.

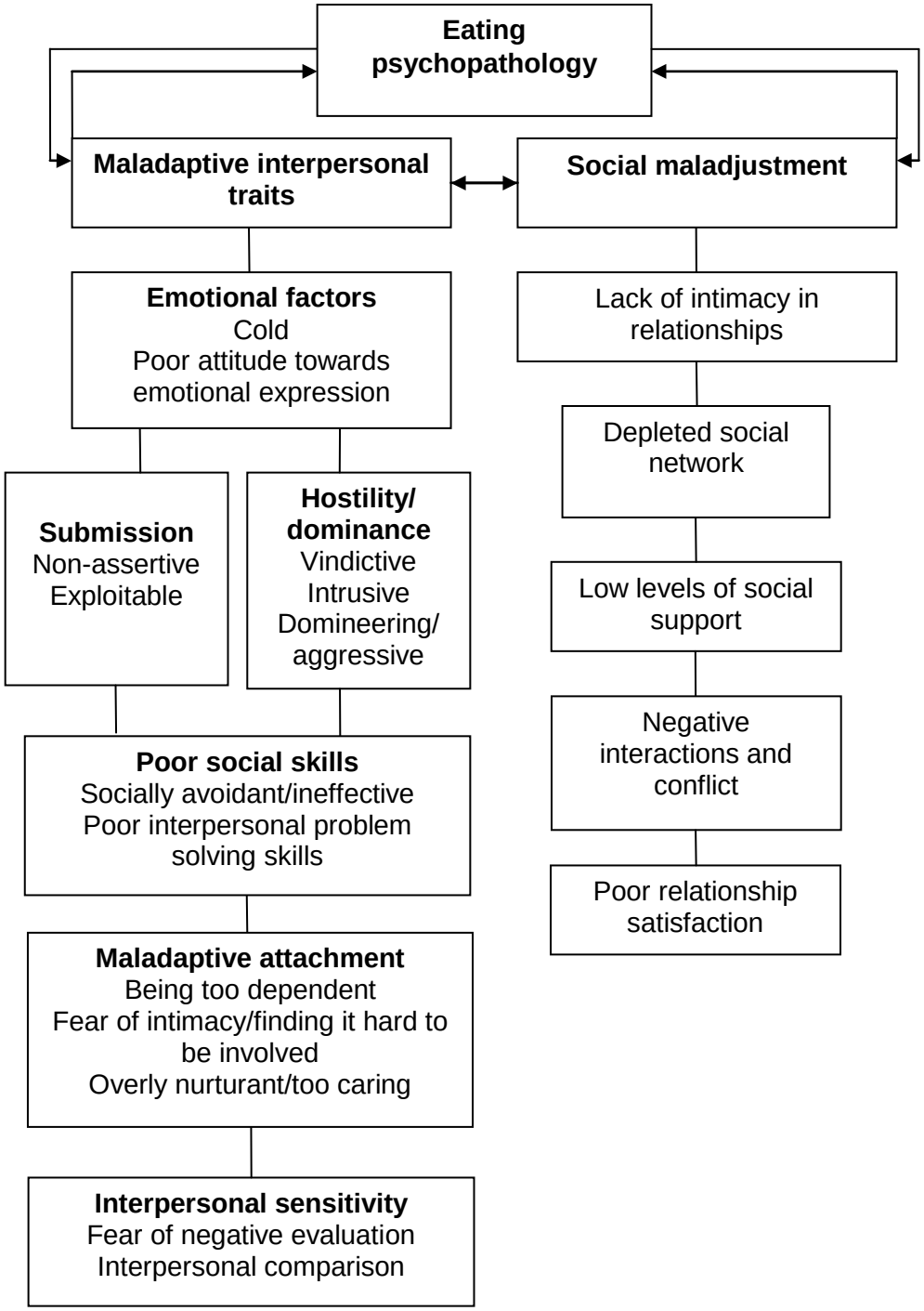


Figure 9.1. Interpersonal functioning in the eating disorders: A preliminary model

Study 2 found that women with BN report higher levels of generalised interpersonal problems than nonclinical women (finding it hard to: be assertive, sociable, supportive, involved, and being too: dependent, caring, and aggressive). All interpersonal problems were higher in the bulimic group apart from being too open with others. Previous research has found significant associations between eating disorder symptoms and generalised interpersonal problems

(Ambwani & Hopwood, 2009; Hopwood, Clarke & Perez, 2007). Similarly, eating disordered women have been found to be more likely to have a non-assertive, socially inhibited, overly nurturing interpersonal style, and were less likely to experience problems with being too domineering (Hartmann et al., 2010) when compared to a nonclinical sample (Brähler et al., 1999) by the author. However, Hartmann et al (2010) used a mixed ED sample, and did not differentiate between diagnoses. In addition, the normative data they used for comparison was collected more than 10 years previously. Study 2 focused on individuals with BN, and found differences in interpersonal problems between these individuals and a current control group. Further research is still required to examine differences in interpersonal problems between individuals with AN and healthy controls, and to control for the effects of depression and anxiety.

While most of the above factors were already known to be associated with eating disorder symptomatology, the studies in this thesis replicate and extend previous research, confirming that these factors are relevant in the preliminary model of interpersonal functioning in the eating disorders. This thesis did not fully test the relationship between eating disorders and attachment using attachment measures as extensive research in this area has already established links (see Ward, Ramsay & Treasure, 2000 for a review). However, the use of the Inventory of Interpersonal Problems (e.g. IIP-32; Barkham, Hardy & Startup, 1996) indicates that being too dependent on others, finding it hard to be involved with others, and being overly nurturant or too caring towards others is related to eating disorder attitudes and behaviours.

It was hypothesised in the preliminary model that individuals with eating disorders were likely to have reduced interpersonal problem solving skills, and study 3 of this thesis was the first to test this using interpersonal scenarios. The results of this study confirmed that women with high levels of eating disorder symptoms were more likely to have poorer interpersonal problem solving skills. Specifically, women with self identified eating disorders were more likely to generate less relevant means in order to solve the problem, and these means were less effective and less specific than means generated by healthy control women. This finding suggests that treatments for the eating disorders would benefit from an interpersonal problem solving skills component.

This thesis focused on the maladaptive interpersonal traits of eating disordered individuals, and did not aim to test the resulting social maladjustment (e.g. the resulting quantity and quality of their relationships, relationship satisfaction). However, data from study 5 revealed that patients with BN reported a depleted social network, a lack social support, a lack of intimacy in

relationships and conflict in relationships, which was seen to arise due to a lack of assertiveness and the skills to manage difficult social situations.

In addition, the results of study 1 and study 2 support the theory of pathoplasticity (Pincus, Lukowitsky & Wright, in press), which suggests that there is no common pathway between eating disorder symptoms and poor interpersonal functioning, and instead there is a higher level of all types of interpersonal problem in eating disordered groups. As a result of this, while individuals with BN are more likely to exhibit a non-assertive, less sociable interpersonal style, all types of interpersonal problem could be present and therefore it is important that clinicians keep an open mind and clarify the patient's interpersonal difficulties and goals during therapy.

### 9.4.2. Refinement of the model

The preliminary model of interpersonal functioning in the eating disorders which was first presented in chapter 1 is shown in figure 9.1. The studies in this thesis have tested this model and therefore it is no longer considered preliminary. The revised model of interpersonal functioning is presented in figure 9.2. It's clear that the model still requires further testing in future research. The findings of this thesis which have led to certain elements of the model being kept the same, and others changed are as follows:

- The following were found to be relevant to eating disorder symptomatology in Study 1 and were therefore kept in the model: Being too domineering, exploitable, overly nurturant, having a negative attitude towards emotional expression, a fear of negative evaluation and high levels of comparison.
- While being non-assertive was not associated with eating disorder attitudes after taking into account depression and anxiety (Study 1), it was found to be relevant to the eating disorders in both Study 2 and Study 5, so this has been left in the model. These results suggest that lack of assertiveness could be more a result of depression and anxiety than it is a result of eating disorder symptomatology. This requires future investigation.
- A version of the Inventory of Personal Problems (IIP-32) employs slightly different subscales to the IIP-SC and was not anticipated to be used in this thesis. This version included a subscale concerning being too open with others. When this version was used in Study 2, those with BN were found to have significantly higher levels of being 'too open' than those without. Therefore the revised model includes being too open as an interpersonal problem. Similarly, the IIP-32 also includes subscales which indicate whether a person reports that they find it hard to be sociable and find it hard to be supportive. These findings have therefore been reflected in the revised model.

- Although some findings of the present thesis remained significant when taking into account depression and anxiety (Study 1), some findings were mediated by underlying depression and anxiety (Study 3). The model therefore needs to reflect the finding that underlying depression and anxiety could be an important factor to consider when exploring links between eating disorder psychopathology and interpersonal problems.
- In Study 1, being cold, vindictive or intrusive were not found to be associated with eating disorder symptomatology once depression and anxiety were taken into account. Further studies in this thesis did not test whether those with high levels of eating disorder symptoms were cold or vindictive, therefore it is difficult to establish whether these elements should be kept in the model or discarded. It was decided that as previous research has found these elements to be relevant to the eating disorders (e.g. Ambwani & Hopwood, 2009), that they should be left until future research has investigated this further.
- Study 5 supports the idea that individuals with eating disorders are socially avoidant, report a lack of intimacy in relationships, a depleted social network and low levels of social support. Although specific themes concerning poorer relationship satisfaction and conflict were not found in the data, the researcher got a sense that these issues were relevant to the participants, and these have been supported in previous research (Evans & Wertheim, 1998; Van den Broucke, Vandereycken & Vertommen, 1995). These results require replication in future quantitative studies.
- Poor attachment was not tested in this thesis as it was considered to be beyond the scope of this research. Attachment has been widely found to be associated with eating disorders (See Ward, Ramsay & Treasure, 2000, for a comprehensive review), and therefore it remains a concept in the revised model.

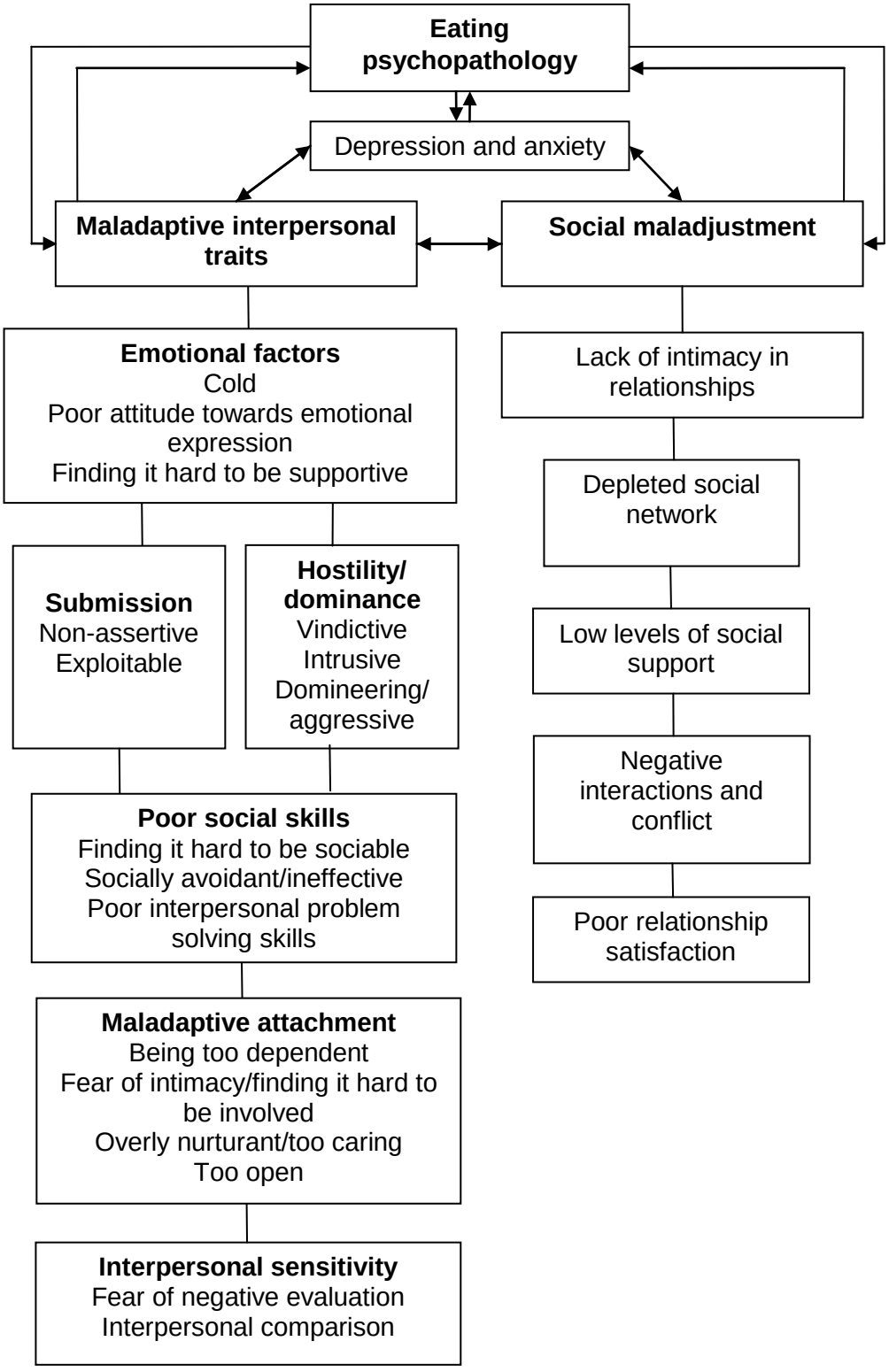


Figure 9.2. The model of interpersonal functioning in the eating disorders

### 9.4.3. Invalidating childhood environments as a possible cause of poor interpersonal functioning in relation to eating disorders

Prior to this thesis, there were no existing studies that had considered the possible causes of poor interpersonal functioning in the eating disorders. This thesis has focused on one possible cause that has previously been linked to eating disorder symptoms – the experience of invalidating childhood environments. Study 4 found that having a negative attitude towards emotional expression fully mediated the relationship between childhood maternal invalidation and adult eating concern. In other words, if a child's emotions are not validated by their mother, they are more likely to develop the belief that expressing emotions is a sign of weakness, and are also more likely to develop eating concern in adulthood. This study adds to the literature which so far has focused on childhood sexual abuse and neglect as causes of poor interpersonal functioning in adults with ED (e.g. Kirschner, Kirschner & Rappaport, 1993; Meiselman, 1990). Emotional invalidation is a more subtle form of neglect which has yet to be investigated in this field. Future longitudinal research could investigate whether this childhood experience does in fact lead to a negative attitude towards emotional expression, which then leads to eating disorder related attitudes. As this study was cross-sectional, it does not indicate the direction of causality.

### 9.4.4. The use of IPT in the treatment of eating disorders

The results of studies 1, 2, 3 and 5 suggest that individuals with high levels of eating disorder symptomatology are more likely to experience poor interpersonal functioning. Therefore, it could be suggested that addressing interpersonal problems in individuals with eating disorders could provide a potential method of enhancing treatment efficacy, thus supporting the use of IPT as a useful and valid therapeutic model.

The current thesis explored patients' experience of a modified version of interpersonal psychotherapy for BN and found that the sample of patients interviewed regarded the therapy to be mostly effective in reducing bulimic symptoms (study 6). In addition, the therapy assisted patients to improve their interpersonal lives in several ways. This finding supports existing evidence that suggests IPT-BN as a beneficial treatment for the eating disorders (Fairburn, 1997; Fairburn, Jones, Peveler, Hope, & O'Connor, 1993; Fairburn et al.,1991; NICE, 2004; Roth & Ross, 1988; Wilfley et al., 2002; Wilfley et al., 1993). Interestingly, in study 7 therapists reported that they did not see IPT-BN as either 'effective' or 'ineffective', but instead as an opportunity for the patient to work on their problems.

In terms of the efficacy of the modified version of IPT, patients who have been through the therapy consider the reintroduction of CBT techniques such as food monitoring to be an important part of therapy. They considered the focus on food to be as important as the focus on relationships. This supports the use of the modified version of the therapy. However, conclusions cannot be drawn regarding the efficacy of the treatment due to the qualitative nature of the study. Therefore the efficacy of IPT for bulimia nervosa, despite its use for the last 12 years, remains unclear. Arcelus et al (2009) conducted a case series evaluation of 59 patients and found that by the middle of therapy there had been a significant reduction in eating disordered cognitions and behaviours and depression, alongside an improvement in interpersonal functioning. However the researchers did not compare this modified version of IPT with a control treatment and therefore it remains difficult to draw conclusions about the efficacy of IPT compared to IPT-BN developed by Fairburn (1997). It is unclear whether adding back in the aspects of IPT that were excluded in IPT-BN trails makes the therapy more or less effective. It was not within the scope of this thesis to conduct a randomised controlled trial of IPT, however future research of this nature would be of benefit. If the psychological factors associated with good and poor outcome were known, decisions could be made as to which individuals would benefit from an alternative therapy, which in turn would save time and money. There is clearly a substantial amount of research required to clarify these issues.

### 9.4.5. Factors considered by patients and therapists to be associated with good and poor outcome of IPT

Although it is not possible to make conclusions about the factors associated with good and poor outcome in IPT for bulimia nervosa from the findings of qualitative studies, qualitative data does suggest several factors which could be investigated in future work. In study 6, patients themselves suggested that IPT did not work as well for them if they were low in motivation to change. Previous literature has reported that motivation deficits are linked to therapy outcome and dropout rates (Geller, Cockell, & Drab, 2001; Geller, Drab-Hudson, Whisenhunt & Srikameswaran, 2004; Rieger et al., 2000). In addition, those who had had their eating disorder for a long period of time felt that IPT could not help them in the same way as those who had not been ill for very long. This finding supports the results of previous quantitative studies (e.g. Keel, Mitchell, Miller, Davis & Crow, 1999).

Study 7 found that IPT therapists considered many factors to be relevant to the outcome of therapy. Therapy was considered to have a better outcome if the patient: has or is willing to build a support network; has the ability to talk about interpersonal factors; is motivated to change; is able to take on the sick role; is able to take an active role in therapy; does not have a

high level of depression; and has not had the eating disorder for a long time. Finally, the therapist's ability to keep the focus of therapy interpersonal was also related to outcome according to therapists. These findings support previous literature which has argued that motivation to change (e.g. Treasure et al., 1999) high levels of depression (Bossert, Schmeolz, Wiegand, Junker & Krieg, 1992; Bulik, Sullivan, Joyce, Carter & McIntosh, 1998; Davis, Olmsted & Rockert, 1992; Mitchell, 1991) and duration of the eating disorder (e.g. Keel, Mitchell, Miller, Davis & Crow, 1999) are implicated in the outcome of psychological therapies. Similarly, therapist 'drift' away from the focus of therapy has been implicated in treatment outcome (Waller, 2008), and is thought to happen most often as a result of a crisis occurring (e.g. Schulte & Eifert, 2002). The results of study 7 indicate that therapists believe these factors to be relevant in the outcome of IPT. Further quantitative research is required to clarify that these factors are relevant in the outcome of IPT for bulimia nervosa specifically.

## 9.5. Strengths of the present thesis

Strengths of the specific studies described in chapters 3, 4, 5, 6, 7, 8 and 9 were discussed in each research chapter. This section therefore only discusses the broader strengths of this thesis.

### 9.5.1. Between method triangulation

This thesis represents the first piece of work that has employed both quantitative and qualitative methods in the investigation of interpersonal functioning in the eating disorders. According to Magnusson, Finnerty & Pope (2005) in combining different methods, the weakness of one method are addressed through the strength of another. This phenomenon is known as triangulation. Erzerberger and Prein (1997) state that triangulation is a methodological approach that increases the validity of research results as multiple methods, data sources and investigations are employed. While quantitative research is more generalisable, it cannot explore patients' experiences and meanings in depth. Studies 5, 6 and 7 represent the first qualitative studies of interpersonal functioning and interpersonal psychotherapy for BN. This thesis therefore uses both quantitative and qualitative methods to assess poor interpersonal functioning in the eating disorders and its treatment. According to Sackett, Straus, Richardson, Rosenberg, & Haynes (2000, p.1) evidence based practice is the 'integration of best research evidence with clinical expertise and patient values'. They argue that when patient values are integrated with the best research evidence and clinical expertise, clinicians and patients can form a diagnostic and therapeutic alliance that maximises clinical outcomes and patients' quality of life. Therefore, it is of great importance to investigate the views of patients on treatment of eating disorders.

9.5.2. Studying nonclinical, subclinical and clinical populations

This thesis employed a wide range of participants, suffering from varying degrees of ED, in addition to nonclinical participants. It is important to study those with high levels of ED symptoms that do not reach clinical diagnosis levels because despite being unlikely to receive treatment, these individuals represent a large proportion of sufferers (Touchette et al., 2011). It has been shown that psychosocial impairment is linearly associated with eating disorder symptoms (Wade, Bergin, Martin, Gillespie & Fairburn, 2006). Therefore, the differences between clinical and subclinical eating disorder features are likely to be marginal (Stice, Ziemba, Margolis, & Flick, 1996). The findings of the present thesis indicate that interpersonal problems are related to eating psychopathology in all three groups. It could be that poor interpersonal functioning worsens prognosis for those with subclinical eating disorders. Future treatments aimed at individuals who do not reach clinical levels of ED should consider the importance of interpersonal functioning in this group.

9.5.3. The effect of depression and anxiety

An additional strength of this thesis is the consideration of the mediating role of depression and anxiety. Studies 1 and 3 of this thesis controlled for the effects of depression and anxiety. Study 1 found that women who have high levels of eating disorder related attitudes also report poor interpersonal functioning, and these relationships still existed after controlling for depression and anxiety. Study 3 found that depression and anxiety mediated the relationship between eating disorder related attitudes and interpersonal problem solving skills. It is important to control for depression and anxiety firstly due to established empirical links between underlying depression and eating disorder psychopathology (Cooper & Fairburn, 1986; Hesse-Biber & Marino, 1991; Schwalberg, Barlow, Alger & Howard, 1992) and secondly, depression and anxiety have both been linked to relationship problems (e.g. Joiner, Alfano & Metalsky, 1992; Rook, Pietromonaco & Lewis, 1994). Therefore it is possible that associations between eating disorder related attitudes and behaviours and poor interpersonal functioning, alongside differences observed between clinical and control samples, can be due to the underlying effects of depression. Since all self-report instruments that require participants to make evaluative judgments are likely to be contaminated by concurrent depression, it should be common practice in clinical research to control for the effects of underlying psychopathology. Despite the wealth of evidence that suggests links between depression and eating disorders, few studies have ruled out the effects of depression in their examination of the social dysfunction in eating disordered individuals. Future research aimed at the investigation of interpersonal functioning in

the eating disorders should consider the effects of concurrent psychopathology in order to fully and accurately clarify relationships among the variables of interest.

## 9.6. Limitations of the present thesis

Despite the strengths of the thesis, there are also some limitations that need to be acknowledged. Limitations of the specific studies described in chapters 3, 4, 5, 6, 7, and 8 were discussed in each research chapter. This section therefore only discusses the broader limitations of this thesis.

### 9.6.1. Gender

This thesis did not examine gender differences as the small number of males in both eating disordered and nonclinical samples led to their exclusion from analyses. Previous research has suggested that the relationship between eating disorder symptoms and interpersonal problems is stronger in women than men (Ambwani & Strauss, 2007). However further investigation of gender-specific experiences of interpersonal problems and their relation to eating psychopathology would be of interest.

### 9.6.2. Ethnicity

Ethnicity was also not investigated in the current thesis. Ninety-six percent of participants recruited in the current thesis spoke English as their first language, and while it is thought that the majority were white, their ethnicity was not recorded. Given that previous studies have found that eating disorders are more common in white women than black women (e.g. Striegel-Moore et al., 2003) and that referrals to ED services are much higher in white women compared to other groups (Abbas et al., 2010) it was not considered to be important to study ethnicity in this thesis. However, given that cultural identity could have an effect on individuals' expectations and experiences of relationships and interpersonal situations, this would be of interest in future research.

### 9.6.3. Recruitment bias

The majority of clinical data collected in this thesis originated from one treatment centre. Therefore, results may not be generalisable to other areas of the country or internationally, particularly where IPT treatment manuals differ. Although the qualitative findings of this thesis originated from one centre, it is hoped that these findings are a significant contribution to a particularly neglected area of research. Similarly, as the majority of individuals with ED at the service suffered from BN, this thesis does not employ any samples with AN.

The majority of nonclinical participants were recruited from one department in a UK University. There are several problems with recruiting participants from this population. Firstly, the age of these participants is often significantly lower than that of women who engage with ED services. Therefore it was not possible to match participants on age in this thesis. Secondly, students are a homogenous group, for example they are more likely to be middle class and are more likely to have had practice in filling out such questionnaires in the past. In particular, the University in question is a major development centre for sport in the UK, which could mean that participants in this population engage in more exercise and are more health conscious than other students in the UK, although there is no evidence to validate this. This recruitment of nonclinical participants therefore is not random but an opportunity sample, which reduces the extent to which the results can be generalised to the rest of the population.

### 9.6.4. Self-report data

The quantitative data collected in this thesis is wholly self-report data. It could be that participants misreported their experiences and perceptions, leading to under or over-reporting of actual behaviours. According to Wilfley, Schwartz, Spurrell and Fairburn (1997), it is difficult to report eating disordered behaviours accurately using self-report questionnaires as behaviours such as bingeing are complex concepts which are difficult to define in such questionnaires. However this limitation is countered by the use of between methods triangulation. Individuals with ED may respond to questions with a more negative cognitive set due to having higher levels of depressive symptoms (Cooper & Fairburn, 1986; Hesse-Biber & Marino, 1991; Schwalberg, Barlow, Alger & Howard, 1992), and therefore they may report more severe disturbances in their social interactions. It might be that while individuals with BN perceived themselves to be socially avoidant and lack assertiveness skills (study 5), that they do not demonstrate actual differences in social interaction. Reports from interaction partners would provide useful information about the extent to which women with BN actually display problems with their relationships.

### 9.6.5. Cross sectional data

The cross sectional nature of the studies in this thesis does not allow conclusions about causality to be drawn and further longitudinal research is required to assess these relationships. Developmental studies could investigate risk factors associated with poor interpersonal functioning in adulthood. Study 4 of this thesis found links between adult interpersonal functioning and childhood invalidating environments, highlighting that childhood experiences could be related to future poor interpersonal functioning.

It is considered likely that poor interpersonal functioning is related to the development and maintenance of ED psychopathology. According to Hartmann, Zeek and Barrett (2009), interpersonal problems are a 'core' component of eating disorders in that they (1) serve as a risk factor for development of the disorder, (2) act to maintain the disorder, and (3) often develop as a result of the eating disorder. Pathoplastic models (e.g. Pincus, Lukowitsky & Wright, in press) also suggest that individual difference and psychopathology variables are mutually influential, and therefore one does not 'cause' the other.

#### 9.6.6. Sample size

Recruiting individuals with ED for research studies is known to represent a significant challenge and is reported in many studies (e.g. Field, Woodside, Kaplan, Olmsted & Carter, 2001). Therefore, the sample sizes used in this thesis are relatively small. Finally, although the aim of this thesis was to investigate interpersonal functioning in the eating disorders, only study 4 includes individuals who consider themselves to suffer from AN. Study 2 aimed to recruit individuals with AN, however an insufficient number were recruited in order to be included in the analyses. Similarly, IPT has not yet been adapted for the treatment of AN, and therefore the experiences of IPT for AN remains unknown.

## 9.7. Future directions for research in interpersonal functioning and IPT in relation to eating disorders

There are several future research ideas that follow on from the research in this thesis. These include studies that examine interpersonal functioning in different diagnostic groups, longitudinal studies which consider the causal relationship between eating disorder symptoms and interpersonal functioning, and studies that investigate the efficacy of IPT-BN. These ideas will be discussed in turn.

#### 9.7.1. Interpersonal functioning in different diagnostic groups

Understanding interpersonal functioning in eating disorders can improve both treatment and outcome. Further research is still required to examine differences in interpersonal problems between individuals with AN, BN and healthy controls, as this thesis primarily focused on individuals with BN due to the greater availability of these samples. The most useful future research would involve determining the types of interpersonal problems which differentiate those with BN from other clinical groups which also involve the individual engaging in 'escape' behaviours. At present is is unclear whether the interpersonal functioning of those with eating disorder related attitudes and behaviours is similar to those who abuse alcohol or drugs.

Patients with ED also need to be compared with larger psychiatric control groups, such as patients with depression as such individuals are often characterised by maladaptive interpersonal functioning (Montgomery, Haemmerlie & Edwards, 1991; Petty et al., 2004). As suggested in section 10.5.3., the findings of this thesis suggest that anxiety and depression play a mediating role in the relationship between interpersonal problem solving skills and eating disorder attitudes. Future research that investigates interpersonal functioning in the eating disorders should therefore consider the effects of concurrent psychopathology in order to establish the nature of the relationships between the variables of interest. Results of research such as this would help researchers and clinicians understand the specificity of poor interpersonal functioning in eating disorders.

### 9.7.2. Longitudinal studies

The causal relationship between factors of interpersonal functioning and eating disorder related attitudes and behaviours is currently unknown. It is suggested in study 5 that the social withdrawal reported by eating disordered women is a consequence of the eating disorder itself, for example as an affect of the anxiety experienced about eating with others and the wish to keep the eating disorder a secret. It is likely that the relationship between eating disorder symptoms and poor interpersonal functioning is cyclical, with maladaptive patterns of relating playing a role in both the development and maintenance of the disorder (Pincus, Lukowitsky & Wright, in press). However social withdrawal could have also pre-dated the eating disorder, and represented a risk factor for its development. Further research examining the specific relationship between poor interpersonal functioning and eating pathology would help clarify these questions. Longitudinal research could be of benefit. According to Kazdin et al. (1997), cross-sectional designs followed by longitudinal designs represent the first stages required to identify risk factors. A longitudinal design must be employed in order to establish temporal precedence between the risk factor and the outcome of interest.

### 9.7.3. The efficacy of IPT-BN

The efficacy of IPT remains unclear at present. Since modifications have been made to the original version used in Fairburn's CBT trial (Fairburn, Kirk, O'Connor, & Cooper, 1986) evidence has been limited to case series investigations (e.g. Arcelus et al., 2010). This means that at present, therapists are unaware of how effective the therapy they are currently practising is, and similarly it is unknown which characteristics mean an individual may benefit more or less from IPT. While in study 6 therapists suggested factors which they believe to be associated with good and poor outcome, these preliminary findings require replication in quantitative studies. If the factors associated with poor outcome were known, decisions could be made as to which

individuals would benefit from an alternative therapy, which in turn would save time and money. Randomised controlled trials of the IPT that is used today are clearly required before firm conclusions can be drawn regarding the efficacy of the therapy in BN. Similarly, while anecdotally IPT appears suitable for individuals with AN (McIntosh et al., 2000; Reiger et al, 2010), there is currently no empirical evidence to support this.

Follow up data is also an important consideration when investigating the efficacy and effectiveness of psychological therapies (Chambless & Hollon, 1998). Study 6 interviewed patients at the end of therapy so as to increase the likelihood of participation. However, patients' thoughts and experiences at follow up would have been of benefit considering the previous finding that eating disordered patients' symptoms continue to improve after IPT has ended (Fairburn et al., 1993). More research on treatment dropout in eating disorders is also clearly needed. The recruitment of individuals who dropped out of IPT proved unsuccessful in study 5. Future quantitative studies could investigate differences in interpersonal functioning between individuals who drop out and those who do not.

### 9.8. Implications of the present thesis

The findings of this thesis provide several key implications for assessment and treatment of eating disorders, these are presented below:

- Assessment of eating disorders should include an interpersonal component. It is likely that those with higher levels of eating disorder related attitudes and behaviours will experience poor interpersonal functioning and that this could maintain and exacerbate eating disorder symptoms.
- It is likely that eating disordered individuals have a high level of generalised interpersonal problems. Clinicians should keep an open mind regarding which interpersonal problems each patient presents with, as there are many individual differences in interpersonal functioning (e.g. problems with being too aggressive and being non-assertive occur in the same sample in this thesis).
- Eating disordered individuals are likely to have poor interpersonal problem solving skills. Treatment could therefore include interpersonal problem solving skills training, such as the discussion of specific relationship problems and role playing of potential conversations found in IPT.
- Current versions of IPT-BN which have reintroduced aspects of CBT such as food monitoring are considered beneficial according to the sample of patients studied here. Data from randomised controlled trials is required before firm recommendations can be made.

- IPT-BN may be less effective for individuals who have been suffering for a long period of time, those who are passive, and those who lack motivation. The inclusion of a motivational component may improve outcome. However these data require replication in quantitative studies.
- Those with subclinical levels of eating disorder symptoms may also experience poor interpersonal functioning. This certainly needs further exploration in the research literature. Although it is currently unclear whether poor interpersonal functioning causes eating disorder symptoms or vice versa, further research in this area could reveal whether addressing interpersonal problems in those with subclinical eating disorders may improve their eating disorder symptoms.
- Although at present there are few treatment options for those with subclinical levels of eating disorder symptoms, it is clear that an interpersonal component to any treatment they receive would be beneficial.

### 9.9. Conclusions

This thesis investigated the interpersonal functioning of women with eating disorder related psychopathology and their treatment through interpersonal psychotherapy. This thesis benefited from triangulation of research methods, both quantitative and qualitative, in the study of poor interpersonal functioning and IPT-BN. The results from the empirical studies reported in this thesis found that poor interpersonal functioning is related to eating disorders in several ways. Qualitative data suggests that IPT is mostly beneficial to patients with bulimic disorders and that treatment resulted in a reduction in bulimic symptoms. Although the qualitative findings of this thesis originated from one centre, it is hoped that these findings are a significant contribution to a particularly neglected area of research. These findings provide invaluable information to professionals working with individuals with eating disorders. Further quantitative research is required to replicate and extend these findings in different samples in order to support the suggested links between eating disorders and poor interpersonal functioning, and to further support the use of current versions of IPT-BN in their treatment.

# 10. References

Abbas, S., Damani, S., Malik, I., Button, E., Aldridge, S., & Palmer, R. L. (2010). A comparative study of South Asian and non-Asian referrals to an eating disorders service in Leicester, UK. *European Eating Disorders Review*, 18, 404-409.

Agras, W. S., Walsh, T., Fairburn, C. G., Wilson, G. T., & Kraemer, H. C. (2000). A multicenter comparison of cognitive-behavioural therapy and interpersonal psychotherapy for bulimia nervosa. Archives of General Psychiatry, 5, 459-466.

Ahrens, A. H., Zeiss, A. M. & Kanfer, R. (1988). Dysphoric deficits in interpersonal standards, self-efficacy, and social comparison. *Cognitive Therapy and Research, 12,* 53 68.

Alden, L. E., & Phillips, N. (1990). An Interpersonal Analysis of Social Anxiety and Depression. *Cognitive Therapy and Research,* 14, 499-513.

Alexander, P. C. (1992). Application of attachment theory to the study of child sexual abuse. *Journal of Consulting and Clinical Psychology*, 60, 185-195.

Ambwani, S., & Hopwood, C. (2009). The utility of considering interpersonal problems in the assessment of bulimic features. Eating Behaviours, 10, 247-253.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th edn.). Washington: American Psychiatric Association.

American Psychiatric Association (1987). *Diagnostic and statistical manual of mental disorders* (3rd edn., rev.). Washington: American Psychiatric Association.

American Psychiatric Association (1980). *Diagnostic and statistical manual of mental disorders* (3rd edn.). Washington: American Psychiatric Association.

Andersen, A. E., Bowers, W., & Evans, K. (1997). Inpatient treatment of anorexia nervosa. In: D. M. Garner, & P. E. Garfinkel (1997). *Handbook of treatment for eating disorders*. Guilford Press.

Apple, R. (1999). Interpersonal Psychotherapy for Bulimia Nervosa. *Clinical Psychologist*, 55, 715–725.

Arcelus, J., Whight, D., Langham, C., Baggott, J., McGrain, L., Meadows. L., & Meyer, C. (2009). A case series evaluation of a modified version of interpersonal psychotherapy (IPT) for the treatment of bulimic eating disorders: A pilot study. *European Eating Disorders Review*, 17, 260-268.

Aronson, J. (1994). A pragmatic view of thematic analysis. *The Qualitative Report*, 2, Retrieved August 14, 2009 from http://www.nova.edu/ssss/QR/BackIssues/QR21/aronson.html

Atlantis, E. & Baker, M. (2008). Obesity effects on depression: systematic review of epidemiological studies. *International Journal of Obesity*, 32, 881-891.

Atlas, J. (2004). Interpersonal sensitivity, eating disorder symptoms, and eating/ thinness expectancies. *Current Psychology: Developmental, Learning, Personality, and*

*Social*, 22, 368- 378.

Attia, E., & Roberto, C. A. (2009). Should amenorrhea be a diagnostic criterion for anorexia nervosa? *International Journal of Eating Disorders*, 42, 581-589.

Bacaltchuk, J., Hay, P., & Mari, J. J. (2000). Antidepressants versus placebo for the treatment of bulimia nervosa: a systematic review. Australian and New Zealand Journal of Psychiatry, 34, 310-317.

Baell, W. K., & Werthein, E. H. (1992). Predictors of outcome in the treatment of bulimia nervosa. *Br J Clin Psychol*, 31, 330-332.

Baigrie, S. S., & Giraldez, L. S. (2008). Examining the relationship between binge eating and coping strategies and the definition of binge eating in a sample of Spanish adolescents. *Span J Psychol, 11*, 172-180.

Barkham, M., Hardy, G. E., & Startup, M. (1996). The IIP-32: A short version of the inventory of interpersonal problems. *British Journal of Clinical Psychology*, 35, 21-35.

Barkham, M., Hardy, G.E., & Startup, M. (1994). The structure, validity and clinical relevance of the Inventory of Interpersonal Problems (IIP). *British Journal of Medical Psychology*, *67*, 171–185.

Baron, R, M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *J Pers Soc Psychol*, 51, 1173–1182.

Beck, A. T., Epstein, N., Brown, G. & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56,* 893 897.

Beck, A. T. & Steer, R. A. (1991). Relationship between the Beck Anxiety Inventory and the Hamilton Anxiety Rating Scale with anxious outpatients. *Journal of Anxiety Disorders, 5,* 213-223.

Beck, A. T. & Steer, R. A. (1990). *Beck Anxiety Inventory Manual.* San Antonio: The Psychological Corporation Harcourt Brace Jovanovich, Inc.

Beck, A.T., Steer, R.A., & Brown, G.K. (1996). *Manual for Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561-571.

Becker, A. E., Eddy, K. T., & Perloe, A. (2009). Clarifying Criteria for Cognitive Signs and Symptoms for Eating Disorders in DSM-V. *International Journal of Eating Disorders*, 42, 611-619.

Bell, L. (2003). What can we learn from consumer studies and qualitative research in treatment of eating disorders? *Eating and Weight Disorders*, *8*, 181–187.

Benner, P. (2001). *From novice to expert: Excellence and Power in Clinical Nursing Practice*. Upper Saddle River, NJ.

Berkman, N. D., Lohr, K. N., Bulik, C. N. (2007). Outcomes of eating disorders: A systematic review of the literature. *Int J Eat Disord*, 40, 293–309.

Berscheid, E., & Peplau, L. A. (1983). The emerging science of relationships. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger et al. (Eds.) *Close relationships* (pp. 1-19). New York.

Beiling, P. J., Antony, M. M., & Swinson, R. P. (1998). The state-trait anxiety inventory, trait version: structure and content re-examined. Behaviour Research and Therapy, 36, 777 788.

Binford, R. B., le Grange, D., & Jellar, C. C. (2005). Eating Disorder Examination versus Eating Disorder Examination-Questionnaire in adolescents with full and partial syndrome bulimia nervosa and anorexia nervosa. *International Journal of Eating Disorders*, 37, 44 49.

Bjelland, I., Dahl, A. A., Haug, T. T., & Neckelmann, D. J. (2002). The validity of the Hospital Anxiety and Depression Scale. An updated literature review. Journal of Psychosomatic Research, 52, 69-77.

Bjorck, C., Clinton, D., Sohlberg, S., Norring, C. (2007). Negative self-image and outcome in eating disorders: Results at 3 year follow up. *Eating Behaviors*, 8, 398–406.

Black, C. M., & Wilson, G. T. (1996). Assessment of eating disorders: interview versus questionnaire. *International Journal of Eating Disorders*, 20, 43-50.

Blechert, J., Ansorge, U., Beckmann, S., & Tuschen-Caffier, B. (2011). The undue influence of shape and weight on self-evaluation in anorexia nervosa, bulimia nervosa and restrained eaters: a combined ERP and behavioral study. *Psychological Medicine*, 41, 185-194.

Blissett, J., Meyer, C., Farrow, C., Bryant-Waugh, R., & Nicholls, D. (2005). Maternal core beliefs and children's feeding problems. *International Journal of Eating Disorders*, 37, 127 134.

Bloks, H., Spinhoven, P., Callewaert, I., Willemse-Koning, C., & Turksma, A. (2001). Changes in coping styles and recovery after inpatient treatment for severe eating disorders. *European Eating Disorders Review*, 9, 397-415.

Blom, M., Spinhoven, P., Hoffman, T., Jonker, K., Hoencamp, E., Haffmans, J., & van Dyck, R. (2007). Severity and duration of depression, not personality factors, predict short term outcome in the treatment of major depression. *Journal of Affective Disorders*, 104, 119 126.

Bonifazi, D. Z., Crowther, J. H., & Mizes, J. S. (2000). Validity of Questionnaires for Assessing Dysfunctional Cognitions in Bulimia Nervosa. Int J Eat Disord, 27, 464–470,

Borden, J. W, Peterson, D. R., and Jackson, E. A. (1991). The Beck Anxiety Inventory in Nonclinical samples: Initial psychometric properties. J. *Psychopathol. Behav. Assess.* 13: 345-356.

Bossert, S., Schmeolz, U., Wiegand, M., Junker, M., Krieg, J. C. (1992). Predictors of short term treatment outcome in bulimia nervosa inpatients. *Behav Res Ther*, 30,193–199

Bowerman, B. L., & O'Connell, R. T. (1990). *Linear statistical models: An applied approach*.

PWS – Kent.

Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment. New* York: Basic Books.

Bradford, R., & Rutherford, D. (2001). The Eating Disorder Belief Questionnaire: In-Patient Adolescent Scores. *Clin Child Psychol Psychiatry,* 6, 513-518.

Brähler, E., Horowitz, L. M., Kordy, H., Schumacher, J., & Strauß, B.. (1999). Zur Validierung des Inventars zur Erfassung Interpersonaler Probleme (IIP)—Ergebnisse einer Repra¨sentativbefragung in Ost- und Westdeutschland. *Psychother Psychosom Med Psychol*, 49, 422–431.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.

Britten, N. (1995). Education and debate: Qualitative interviews in medical research. *British Medical Journal*, 311, 251-253.

Bulik, C. M., Hebebrand, J., Keski-Rahkonen, A., Klump, K. L., Reichborn-Kjennerud, T., Mazzeo, S. E. & Wade, T. D. (2007). Genetic epidemiology, endophenotypes, and eating disorder classification. *International Journal of Eating Disorders*, 40, 552-560.

Bulik, C. M., Sullivan, P. F., Joyce, P. R., Carter, F. A., McIntosh, V. V. (1998). Predictors of 1-year treatment outcome in bulimia nervosa. *Compr Psychiatry*, 39, 206–214

Burney, J., & Irwin, H. (2000). Shame and guilt in women with eating-disorder symptomatology. *Journal of Clinical Psychology*, 56(1), 51-61.

Burt, D. B., Zembar, M. J., & Niederehe, G. (1995). Depression and memory impairment: a meta-analysis of the association, its pattern, and specificity. *Psychology Bulletin*, 117, 285–305.

Bushnell, J. A., Wells, J. E., Hornblow, A. R., Oakley-Browne, M. A., Joyce, P. (1990). Prevalence of three bulimia syndromes in the general population. *Psychol Med,* 20, 671–680.

Button, E. J., Benson, E., Nollett, C., & Palmer, R. L. (2005). Don't forget EDNOS (eating disorder not otherwise specified): patterns of service use in an eating disorders service. *Psychiatric Bulletin*, 29, 134–136.

Cachelin, F. M., Rebeck, R., Veisel, C., & Striegel-Moore, R. H. (2001). Barriers to treatment for eating disorders among ethnically diverse women. International Journal of Eating Disorders, 30, 269-278.

Carlat, D. J., & Camargo, C. A. (1991). Review of bulimia nervosa in males. American *Journal of Psychiatry*, 148, 831–843.

Carlat, D. J., Carmargo, C. A., & Herzog, D. B. (1997). Eating disorders in males: A report on 135 patients. *American Journal of Psychiatry*, 154, 1127–1132.

Carleton, R. N., Collimore, K. C., & Asmundson, G. J. G. (2007). Social anxiety and fear of negative evaluation: Construct validity of the BFNE-II. *Journal of Anxiety Disorders*, 21, 131–141.

Carleton, N., McCreary, D. R., Norton, P., & Asmundson, G. J. G. (2006). Brief fear of negative evaluation scale-revised. *Depression and Anxiety*, 23, 297–303.

Carter, J. C., Aime, A. A., & Mills, J. S. (2001). Assessment of bulimia nervosa: A comparison of interview and self-report questionnaire methods. *International Journal of Eating Disorders*, 30, 187-192.

Carter, J. C., Stewart, D. A., & Fairburn, C. G. (2001). Eating disorder examination questionnaire: Norms for young adolescent girls. *Behaviour Research and Therapy*, 39, 625 632.

Cash, T. F., & Deagle, E. A. (1998) The nature and extent of body-image disturbances in anorexia nervosa and bulimia nervosa: A meta-analysis. *International Journal of Eating Disorders,* 22, 107-126.

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology*, 66, 7-18.

Cloitre, M., Scarvalone, P., & Difede, J. (1997). Posttraumatic stress disorder, self- and interpersonal dysfunction among sexually retraumatized women. *Journal of Traumatic Stress*, 10, 437-452.

Cockell, S., Zaitsoff, S., & Geller, J. (2004). Maintaining change following eating disorder treatment. *Professional Psychology: Research and Practice*, 35, 527-534.

Collier, D. A., & Treasure, J. (2004). The aetiology of eating disorders. *British Journal of Psychiatry*, 185, 363-365.

Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review*, 107, 261-288.

Cooper, M. J. (1997a). Cognitive theory in anorexia nervosa and bulimia nervosa: A review. Behavioural and Cognitive Psychotherapy, 25, 113-145.

Cooper, M. J., Cohen-Tovee, E., Todd, G., Wells, A., & Tovee, M. (1997). The Eating Disorder Belief Questionnaire: Preliminary development. *Behaviour Research and Therapy*, 35, 381-388.

Cooper, Z., & Fairburn, C. G. (1987). The Eating Disorder Examination: A semi-structured interview for the assessment of the specific psychopathology of eating disorders. *International Journal of Eating Disorders*, 4, 5-27.

Cooper, P. J., Taylor, M. J., Cooper, Z., & Fairburn, C. G. (1987). The development and validity of the Body Shape Questionnaire. International Journal of Eating Disorders, 6, 485-494.

Corstorphine, E. (2006). Cognitive-emotional-behavioural-therapy for the eating disorders: Working with beliefs about emotions. *Eur Eat Disord Rev*, 14, 448–461.

Coryell, W., Scheftner, W., Keller, M., Endicott, J., Maser, J., & Klerman, G. L. (1993). The enduring psychosocial consequences of mania and depression. American Journal of Psychiatry, 150(5), 720–727.

Crawford, J, R., Henry, J. D., Crombie, C., & Taylor, E. P. (2001). Brief report: Normative data

for the HADS from a large non-clinical sample. *British Journal of Clinical Psychology*, 40, 429-434.

Creamer, M., Foran, J., & Bell, R. (1995). The Beck Anxiety Inventory in a non-clinical sample. *Behaviour Research and Therapy*, 33, 477–485.

Crisp, A. H. (1980). *Anorexia nervosa: Let me be.* London: Academic.

Crowe, M., & Luty, S. (2005). Patterns of response and non-response in Interpersonal Psychotherapy: a qualitative study. Psychiatry: Interpersonal and Biological Processes, 68, 337-349.

Crowther, J. H., & Sherwood, N. E. (1997). *Assessment*. In D. M. Garner, & P. E. Garfinkel (Eds.) *Handbook of treatment for eating disorders (2nd edition)* (pp.34-39).

Currin, L., Schmidt, U., Treasure, J., & Jick, H. (2005). Time trends in eating disorder incidence. British Journal of Psychiatry, 186, 132 - 135.

Dahlstrom, W. G., & Welsh, G. S. (1960). *An MMPI Handbook* . Minneapolis: University of Minnesota Press.

Davis, R., Olmsted, M.P., Rockert, W. (1992). Brief group psychoeducation for bulimia nervosa, II: prediction of clinical outcome. *Int J Eat Disord*, 11, 205–211

De Beurs, E., & Wilson, K. A. (1997). Convergent and divergent validity of the Beck Anxiety Inventory for patients with panic disorder and agoraphobia. *Depression and anxiety*, 6, 140-146.

De Groot, J. M., Rodin, G., Olmsted, M. P. (1995). Alexithymia, depression, and treatment outcome in bulimia nervosa. *Comprehensive Psychiatry*, 36, 53–60.

Denzin, N. K. (1989): The Research Act. A Theoretical Introduction to Sociological Methods. 3rd edition. Englewood Cliffs.

Descutner, C. J., & Thelen, M. H. (1991). Development and Validation of a Fear-of Intimacy Scale. *Psychological Assessment*, 3, 218-215.

Devins, G. M., Orme, C. M., Costello, C. G., Binik. Y. M., Frizzell, B., Stam, H. J., Pullin, W. M. (1988). Measuring depressive symptoms in illness populations: Psychometric properties of the Center for Epidemiologic Studies Depression (CES-D). *Psychology and Health,* 2, 139-56.

Diehl, N. S., Johnson, C. E., Rogers, R. L., & Petrie, T. A. (1998). Social physique anxiety and disordered eating: What's the connection? *Addictive Behaviors*, 23, 1–6.

DiLillo, D. (2001). Interpersonal functioning among women reporting a history of childhood sexual abuse: Empirical findings and methodological issues. *Clinical Psychology Review*, 21(4), 553-576.

Donaldson, C. (2004). Rumination, mood and social problem-solving in major depression. *Psychological Medicine*, 34(7), 1309-1318.

Dorahy, M. J., Corry, M., Shannon, M., MacSherry, A., Hamilton, G., McRobert, G., Elder, R., & Hanna, D. (2009). Complex PTSD, interpersonal trauma and relational consequences:

Findings from a treatment-receiving Northern Irish sample. *Journal of Affective Disorders*, 112, 71-80.

D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology*, 78, 107-126.

D'Zurilla, T. J., & Nezu, A. M. (1982). Social problem solving in adults. In P.C. Kendall (Ed.), Advances in cognitive-behavioral research and therapy (Vol. 1, pp.201-274). New York: Academic Press.

Elkin, L., Shea, T., Watkins, J. T., Imber, S. D., Sotsky, S. M., Collins, J. F. (1989). National Institute of Mental Health Treatment of Depression Collaborative Research Program: General effectiveness of treatments. *Archives of General Psychiatry, 46*, 971 982.

Elliott, R., Fischer, C.T. & Rennie, D.(1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology*, 38, 3, 215-229.

Erhart, N. K., & Hammen, C. L. (2006). Interpersonal predictors of onset of depression during the transition to adulthood. *Personal Relationships*, 13, 195–206

Erzerberger, C., & Prein, G. (1997). Triangulation: Validity and empirically based hypothesis construction. *Quality and Quantity*, 31, 141-154.

Espelage, D., Quittner, A. L., Sherman, R., & Thompson, R. (2000). Assessment of problematic situations and coping strategies in women with eating disorders: Initial validation of a situation-specific problem inventory. *Journal of Psychopathology and Behavioral Assessment, 22*, 271-297.

Evans, L., & Wertheim, E. H. (1998). Intimacy patterns and relationship satisfaction of women with eating problems and the mediating effects of depression, trait anxiety and social anxiety. *Journal of Psychosomatic Research*, 44, 355–365.

Fairburn, C.G. (1997). Interpersonal psychotherapy for bulimia nervosa. In D.M. Garner & P.E. Garfinkel (Eds.), *Handbook of treatment for eating disorders* (2nd ed., pp. 278–294). New York: Guilford Press.

Fairburn, C.G. (1993). Interpersonal psychotherapy for bulimia nervosa. In G.L. Klerman & M.M. Weissman (Eds.), *New applications of interpersonal therapy* (pp. 278–294). Washington, DC: American Psychiatric Press.

Fairburn, C. G. (1991). The heterogeneity of bulimia nervosa and its implications for treatment. *J Psychosom Res*, 35, 3–9.

Fairburn, C. G. (1981). A cognitive behavioural approach to the management of bulimia. *Psychological Medicine*, 11, 707–711.

Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: Interview or self report. *International Journal of Eating Disorders*, 16, 363–370.

Fairburn, C. G., & Bohn, K. (2005). Eating disorder NOS (EDNOS): an example of the troublesome ‘‘not otherwise specified’’ (NOS) category in DSM-IV. *Behaviour Research and Therapy,* 43, 691–701.

Fairburn, C. G., & Cooper, Z. (1993). *The Eating Disorders Examination (12th edition)*. In C. G. Fairburn & G. T. Wilson (Eds.) *Binge eating: Nature, assessment and treatment*. London: Guilford.

Fairburn, C. G., Cooper, Z., Bohn, K., O'Connor, M. E., Doll, H. A., & Palmer, R. L. (2007). The severity and status of eating disorder NOS: Implications for DSM-V. *Behaviour Research and Therapy*, 45, 1705–1715.

Fairburn, C. G., Cooper, Z., Doll, H., A., & Welch, S. L. (1999b). Risk factors for anorexia nervosa: three integrated case-control comparisons. *Archives of General Psychiatry*, 56, 468-476.

Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. *Behaviour Research and Therapy*, 41, 509–528.

Fairburn, C., & Harrison, P. (2003). Eating disorders. *Lancet*, 361, 407– 416.

Fairburn, C. G., Hay, P. J., & Welch, S. L. (1997). Binge eating and bulimia nervosa: Distribution and determinants. In C. G. Fairburn & G. T. Wilson (Eds.) *Binge eating: Nature, assessment and treatment* (pp. 123 – 143). London: Guilford.

Fairburn, C. G., Jones, R., Peveler, R. C., Carr, S. J., Solomon, R. A., O'Connor, M. E., Burton, J., & Hope, R. A. (1991). Three psychological treatments for bulimia nervosa: A comparative trial. Arch Gen Psychiatry, 48, 463-469.

Fairburn, C. G., Jones, R., Peveler, R. C., Hope, R. A., & O'Connor, M. (1993). Psychotherapy and bulimia nervosa: longer term effects of interpersonal psychotherapy, behavior therapy and cognitive behaviour therapy. Archives of General Psychiatry, 50, 419-428.

Fairburn, C. G, Kirk, J., O'Connor, M., Anastasiades, P., Cooper, P. J. (1987). Prognostic factors in bulimia nervosa. *Br J Clin Psychol*, 26, 223–224.

Fairburn, C. G., Kirk, J., O'Connor, M., & Cooper, P. J. (1986). A comparison of two psychological treatments for bulimia nervosa. *Behav Res Ther*, 24, 629-643.

Fairburn, C. G., Shafran, R., & Cooper, Z. (1999). A cognitive behavioural theory of anorexia nervosa. *Behaviour Research and Therapy*, 37, 1–13.

Fairburn, C. G., & Walsh, B. T. (2002). Atypical eating disorders (eating disorder not otherwise specified). In C. G. Fairburn, & K. D. Brownell (Eds.), *Eating disorders and obesity: a comprehensive handbook*, (2nd ed.) (pp. 171–177). Guilford Press: New York.

Feijo de Mello, M., de Jesus Mari, J., Bacaltchuk, J., Verdeli, H., & Neugebauer, R. (2005). A systematic review of research findings on the efficacy of interpersonal therapy for depressive disorders. *European Archives of Psychiatry and Clinical Neuroscience*, 255, 75-82.

Feske, U., Frank, E., Kupfer, D. J., Shear, K., Weaver, E. (1998). Anxiety as a predictor of response to Interpersonal psychotherapy for recurrent major depression: an exploratory investigation. *Depression and Anxiety*, 8, 135–141.

Fichter M. M,, & Quadflieg, N. (2004). Twelve-year course and outcome of bulimia nervosa. Psychological Medicine, 34, 1395–1406.

Fichter, M. M., & Quadflieg, N. (1997). Six-year course of bulimia nervosa. Int J Eat Disord, 22, 361–384.

Field, A. (2005). *Discovering statistics using SPSS* (Second Edition). London: Sage. Frank, E. (2005). *Treating Bipolar Disorder: A Clinician's Guide to Interpersonal and Social Rhythm Therapy* . New York: Guilford.

Field, R., Woodside, B., Kaplan, A., Olmsted, M., & Carter, J. (2001). Pretreatment motivational enhancement therapy for eating disorders: A pilot study. *International Journal of Eating Disorders*, 29,(4), 393-400.

Flament, M. F., Bissada, H., & Spettigue, W. (2012). Evidence-based pharmacotherapy of eating disorders. *International Journal of Neuropsychopharmacology*, 15, 189-207.

Flemming, M. H. (1991). The therapist with the three track mind. Am J Occup Ther, 45, 1007 1014.

Freeman, C. P. L., & Barry, F. (1990). Eating disorders. In D. E. Peck, and C. M. Shapiro (Eds.) Measuring human problems (pp. 317-337). Chichester: Wiley.

Freeman, L. M., & Gil, K. M. (2004). Daily stress, coping, and dietary restraint in binge eating. *International Journal of Eating Disorders,* 36, 204-212.

Fryer, S., Waller, G., & Kroese, B. S. (1998). Stress, coping and disturbed eating attitudes in teenage girls. *International Journal of Eating Disorders*, 22, 427-436.

Garfinkel, P. E., Lin, E., Goering, C., Spegg, D., Goldbloom, D., & Kennedy, S. (1996). Should amenorrhoea be necessary for the diagnosis of anorexia nervosa? Evidence from a Canadian community sample. *Br J Psychiatry,* 168, 500 –506.

Garfinkel, P. E., Lin, E., Goering, P., Spegg, C., Goldbloom, D. S., Kennedy, S., et al (1995). Bulimia nervosa in a Canadian community sample: prevalence and comparison subgroups. *Am J Psychiatry,* 152, 1052–1058.

Garner, D. M. (1991). *Eating Disorder Inventory2 professional manual.* Odessa, FL: Psychological Assessment Resources, Inc.

Garner, D. M., & Garfinkel, P. E. (1979) The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine*, 9, 273-279.

Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine*, 12, 871-878.

Garner, D. M., Olmstead, M. A., Polivy, J. (1983) Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders*, 2, 15-34.

Geller, J., Cockell, S. J., & Drab, D. L. (2001). Assessing readiness for change in the eating disorders: The psychometric properties of the Readiness and Motivation Interview. *Psychological Assessment, 13*, 189–198.

Geller, J., Cockell, S., & Hewitt, P. L. (2000). Inhibited Expression of Negative Emotions and Interpersonal Orientation in Anorexia Nervosa. *Int J Eat Disord*, 28, 8–19.

Geller, J., Drab-Hudson, D. L., Whisenhunt, B. L., Srikameswaran, S. (2004). Readiness to Change Dietary Restriction Predicts Outcomes in the Eating Disorders. *Eating Disorders: The Journal of Treatment & Prevention*, 12, 209 – 224.

Ghaderi, A., & Scott, B. (2000). Coping in dieting and eating disorders: a population-based study. *Journal of Nervous and Mental Disease*, 188, 273-279.

Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: Development of a scale of social comparison orientation. Journal of Personality and Social Psychology, 76, 129-142.

Gilbert, N. (2007). Factors that might inhibit or facilitate help seeking amongst individuals with eating disorders. A systematic review. *Unpublished doctoral thesis.*

Gilbert, N., & Meyer, C. (2005b). Fear of Negative Evaluation and Eating Attitudes: A Replication and Extension Study. *International Journal of Eating Disorders*, 37, 360-363.

Gilbert, N., Meyer, C. (2005a) Fear of Negative Evaluation and the Development of Eating Psychopathology: A Longitudinal Study among nonclinical women. *Int J Eat Disord, 37*, 307–312.

Gilbert, N., & Meyer, C. (2003). Social anxiety and social comparison: differential links with restrictive and bulimic attitudes among nonclinical women. *Eating Behaviors*, 4, 257 - 264.

Gillberg, C., Råstam, M., & Gillberg, I. C. (1994a). Anorexia nervosa: Physical health and neurodevelopment at 16 and 21 years. *Dev Med Child Neurol*, 36, 567–575.

Gillberg, I. C., Råstam, M., & Gillberg C. (1994b). Anorexia nervosa outcome: Six-year controlled longitudinal study of 51 cases including a population cohort. *J Am Acad Child Adolesc Psychiatry*, 33, 729–739.

Goddard, L., Dritschel, B., & Burton, A. (2001). The effects of specific retrieval instruction on social problem-solving in depression. *British Journal of Clinical Psychology, 40,* 297-308.

Goddard, L., Dritschel, B., & Burton, A. (1997). Social problem solving and autobiographical memory in non-clinical depression. *British Journal of Clinical Psychology,* 36, 449-451.

Goddard, L., Dritschel, B., & Burton, A. (1996). Role of autobiographical memory in social problem solving and depression. *Journal of Abnormal Psychology, 105*(4), 609-616.

Goldfein, J. A., Devlin, M. J., & Kamenetz, C. (2005). Eating Disorder Examination Questionnaire with and without instructions to assess binge eating in patients with binge eating disorder. *International Journal of Eating Disorders*, 37, 107-111.

Gotlib, I. H., Lewinsohn, P. M., & Seeley, J. R. (1998). Consequences of depression during adolescence: Marital status and marital functioning in early adulthood. *Journal of Abnormal Psychology*, 107(4), 686–690.

Gotlib, I. H., & Meltzer, S. J. (1987). Depression and the perception of social skill in dyadic interaction. *Cognitive Therapy and Research,* 11*,* 41-53.

Greenberg, L. S., & Safran, J. D. (1987). *Emotion in psychotherapy. New* York: Guilford Press.

Griffin, C. (1990). *The Researcher Talks Back*. In: W. Shaffir and R. Stebbins (eds) *Experiencing Fieldwork*. Newbury Park, CA, Sage.

Griffith, J., Sumner, J., Raes, F., Barnhofer, T., Debeer, E., Hermans, D. (2011). Current psychometric and methodological issues in the measurement of overgeneral autobiographical memory. *Journal of Behavior Therapy and Experimental Psychiatry*, 5, 1 11.

Grilo, C. M., Masheb, R. M., & Wilson, G. T. (2001). A comparison of different methods for assessing the features of eating disordered patients with binge eating disorder. *Journal of Consulting Clinical Psychology*, 69, 317-322.

Grilo, C. M., Shiffman, S., & Carter-Campbell, J. T. (1994). Binge eating antecedents in normal weight nonpurging females: Is there consistency? *International Journal of Eating Disorders*, 16, 239–249.

Grissett, N.I. and Norvell, N.K. (1992). Perceived social support, social skills, and quality of relationships in bulimic women. *Journal of Consulting Clinical Psychology*, 60, 293–299.

Gross, J., Rosen, J. C., Leietnberg, H., & Willmuth, M. E. (1986). Validity of the Eating Attitudes Test and the Eating Disorders Inventory in bulimia nervosa. *Journal of Consulting and Clinical Psychology*, 54, 875-876.

Grudens-Schuck, N., Allen, B. L., & Larson, K. (2004). Focus group fundamentals Methodology Brief. Iowa State University Extension. Available online at http://www.extension.iastate.edu/cd-dial.

Haase, A. M., & Prapavessis, H. (1998). Social physique anxiety and eating attitudes: Moderating effects of body mass and gender. *Psychology, Health and Medicine*, 3, 201–210.

Halmi, K.A., Sunday, S., Strober, M., Kaplan, A., Woodside, D.B., Fichter, M., Treasure, J., Berrettini, W.H., & Kaye, W. H. (2000). Perfectionism in anorexia nervosa: Variation by clinical subtype, obsessionality and pathological eating behaviour. *Am J Psychiatry*, 157, 1799-1805.

Hall, A., Delahunt, J. W., & Ellis, P. M. (1985). Anorexia nervosa in the male: clinical features and follow-up of nine patients. *J Psychiatr Res*, 19, 315–321.

Hartmann, A., Zeeck, A., & Barrett, M. S. (2010). Interpersonal problems in eating disorders. International Journal of Eating Disorders, 7, 619 – 627.

Haslam, M., Mountford, V., Meyer, C., & Waller, G. (2008). Invalidating childhood environment In anorexia and bulimia nervosa. *Eating Behaviors*, 9, 313-318.

Haviland MG, Warren WL, Riggs ML (2000). "An observer scale to measure alexithymia".

*Psychosomatics,* 41, 385–92.

Hay, P, J., Mond, J., Buttner, P., & Darby, A. (2008). Eating disorder behaviors are increasing: findings from two sequential community surveys in South Australia*.* Public Library of Science ONE , 3, 1-5.

Heimberg, R. G., Klosko, J. S. Dodge, C. S. Shadick, R. Becker, R. E., & Barlow, D. H. (1989). Anxiety disorders, depression, and attributional style: A further test of the specificity of depressive attributions. *Cognitive Therapy and Research, 13,* 21-36.

Heinberg, L. J., Thompson, J. K. (1992). Social comparison: gender, target importance ratings, and relation to body image disturbance. *J Soc Behav Pers*, 7, 335–344.

Hepworth, J. (1994). Qualitative analysis and eating disorders: Discourse analytic research on anorexia nervosa*. International Journal of Eating Disorders*, *15*, 179–185.

Hesse-Biber, S., & Marino, M. (1991). From high school to college: changes in Women's self concept and its relationships to eating problems. *J Psychol*, 125, 199–216.

Herzog, D. B., Dorer, D. J., Keel, P. K., Selwyn, S, E., Ekeblad, E. R., Flores, A. T., Greenwood, D. N., Burwell, R. A., Keller, M. B. (1999). Recovery and Relapse in Anorexia and Bulimia Nervosa: A 7.5-Year Follow-up Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38, 7, 829-837.

Herzog, D. B., Greenwood, D, N., Dorer, D. J., Flores, A. T., Ekeblad, E. R., Richards, A., Blais, M. A., & Keller, M. B. (2000). Mortality in Eating Disorders: A Descriptive Study. *Int J Eat Disord*, 28, 20–26.

Herzog, D. B., Hopkins, J. D., & Burns, C. D. (1993). A follow-up study of 33 subdiagnostic eating disordered women. *International Journal of Eating Disorders*, 14, 261–267.

Herzog, D. B., Norman, D. K., Rigott, N. A., Pepose, M. (1986). Frequency of bulimic behaviours and associated social maladjustment in female graduate students. *Journal of Psychiatric Research*, 20, 355-361.

Hewitt, P., Flett, G., & Ediger, E. (1995). Perfectionism traits and perfectionistic self presentation in eating disorder attitudes, characteristics and symptoms. *International Journal of Eating Disorders*, 18, 317-326.

Hinrichsen, G.A., & Clougherty, K.F. (2006). *Interpersonal psychotherapy for depressed older adults* . Washington, DC: American Psychological Association.

Hinrichsen, H., Wright, F., Waller, G., & Meyer, C. (2003). Social anxiety and coping strategies in the eating disorders. *Eating Behaviors*, 4, 117-126.

Hoek, H. W., Bartelds, A. I. M., Bosveld, J. J. F., van der Graaf, Y., Limpens, V. E. L., Maiwald, M. & Spaaij, C. J. K. (1995). Impact of urbanization on detection rates of eating disorders. American Journal of Psychiatry, 152, 1272–1278.

Hoek, H.W., & van Hoeken, D. (2003) Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders*, 34, 383-396.

Hoffart, A., Abrahamsen, G., Bonsaksen, T., Borge, F.M., Ramstad, R., Lipsitz, J., & Markowitz, J.C. (2007). *A Residential Interpersonal Treatment for Social Phobia.* New

York, Nova Science Publishers Inc.

Hopwood, C., Clarke, A., Perez, M. (2007). Pathoplasticity of bulimic features and interpersonal problems. *International Journal of Eating Disorders*, 40, 652 – 658.

Hopwood, C. J., Pincus, A. L., DeMoor, R. M., & Koonce, E. A. (2008). Psychometric characteristics of the Inventory of Interpersonal Problems-Short Circumplex (IIP-SC). *Journal of personality assessment*, 90, 615-618.

Horowitz, L. M. (2004). Interpersonal foundations of psychopathology. Washington DC: American Psychological Association.

Horowitz, L.M., Rosenberg, S.E., Baer, B.A., Ureno, G., & Villasenor, V.S. (1988). Inventory of Interpersonal Problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology*, 56, 885–892.

Horowitz, M., & Vitkus, J. (1986). The interpersonal basis of psychiatric symptoms. *Clinical Psychology Review*, 6, 443-469.

Hudson, J. I., Hiripi, E., Pope, H. G., & Kessler, R. C. (2007). The Prevalence and Correlates of Eating Disorders in the National Comorbidity Survey Replication. Biological Psychiatry, 1, 348–358.

Hughes, J., & Barkham, M. (2005). Scoping the Inventory of Interpersonal Problems, its Derivatives and Short Forms: 1988–2004. Clinical Psychology and Psychotherapy, 12, 475–496.

Ingram, R. E., Ramel, W., Chavira, D., & Scher, C. (2005). Social anxiety and depression. In: W. R. Crozier, & L. E. Alden (Eds.). (2005). *The essential book of social anxiety for clinicians*. Wiley publishers.

Jack, D.C., & Dill, D. (1992). The Silencing the Self Scale: Schemas associated with depression in women. *Psychology of Women Quarterly*, 16, 97–106.

Jackson, C. W., Cates, M., & Lorenz, R. (2010). Pharmacotherapy of Eating Disorders. *Nutrition in Clinical Practice*, 25, 143-159.

Jacobi, C., Hayward, C., de Zwaan, M., Kraemer, H. C., & Agras, S. W. (2004). Coming to terms with risk factors for eating disorders: applications of risk terminology and suggestions for a general taxonomy. *Psychological Bulletin*, 130, 19-65.

Jarrett, R. B., & Rush, A. J. (1994). Short term psychotherapy of depressive disorders: current status and future directions. *Psychiatry*, 57, 115-132.

Jasper, M. A. (1994). Expert: a discussion of the implications of the concept as used in nursing. *J Adv Nurs*, 20, 769-776.

Johnson, C. & Berndt, DJ. (1983). Preliminary investigation of bulimia and life adjustment. *American Journal of Psvchiatry*, 140, 774-777.

Joiner, T. E., Alfano, M. S., & Metalsky, G. I. (1992). When depression breeds contempt: reassurance seeking selfesteem and rejection of depressed college students by their roommates. *J Abnorm Psychol*, 101, 165–173.

Jones, W. H., & Carpenter, B. N. (1986). Shyness, social behavior, and relationships. In W.T. Jones, J. M. Cheek, & S. R. Briggs (Eds.), *Shyness: Perspectives on research and Treatment* (pp. 227-238). New York: Henum Press.

Joseph, S., Williams, R., Irwing, P., & Cammock, T. (1994). The preliminary development of a measure to assess attitudes towards emotional expression. *Personality and Individual Differences*, 16, 869–875.

Joyce, L. C. (2008). Patients' Perspective on Family Therapy for Anorexia Nervosa: A Qualitative Inquiry in a Chinese Context. Australian and New Zealand Journal of Family Therapy, 29, 10-16.

Joyce, P. R., McKenzie, J. M., Certer, J. D., Rae, A. M., Luty, S. E., Frampton, C. M. A., & Mulder, R. J. (2007). Temperament, character and personality disorders as predictors of response to interpersonal psychotherapy and cognitive behavioural therapy for depression. *British Journal of Psychiatry*, 190, 503-508.

Kalarchian, M. A., Wilson, G. T., Brolin, R. E., & Bradley, L. (2000). Assessment of eating disorders in bariatric surgery candidates: Self report questionnaire versus interview. *International Journal of Eating Disorders*, 28, 465-469.

Kaye, W. H., Bulik, C. M., Thornton, L., Barbarich, N., & Masters, K. (2004). Comorbidity of anxiety disorders with anorexia and bulimia nervosa. *Am J Psychiatry*, 161, 2215-2221.

Kazdin, A. E., Kraemer, H. C., Kessler, R. C., Kupfer, D. J., & Offord, D. R. (1997). Contributions of risk-factor research to developmental psychopathology. *Clinical Psychology Review, 17*(4), 375-406.

Keel, P. K., Heatherton, T. F., Dorer, D. J., Joiner, T. E., & Zalta, A. K.. (2006). Point prevalence of bulimia nervosa in 1982, 1992, and 2002. Psychological Medicine, 36, 119–127.

Keel, P.K. & Klump, K. L. (2003) Are eating disorders culture-bound syndromes? Implications for conceptualizing their etiology. *Psychological Bulletin*, 129, 747-769.

Keel, P. K., & Mitchell, J. E. (1997). Outcome in bulimia nervosa. *Am J Psychiatry*, 154, 313 – 321.

Keel, P. K., Mitchell, J. E., Miller, K. B., Davis, T. L., Crow, S. J. (1999). Long-term outcome of bulimia nervosa. *Arch Gen Psychiatry*, 56, 63-69.

Kelle, U. (2001): Sociological Explanations between Micro and Macro and the Integration of Qualitative and Quantitative Methods. In: Forum Qualitative Social Research 2 (2001), No. 1. Available at: http://www.qualitative-research.net/fqstexte/ 1-01/1-01kelle-e.pdf.

Kendler, K. S., MacLean, C., Neale, M., Kessler, R., Heath, A., & Eaves, L. (1991). The Genetic epidemiology of bulimia nervosa. *AmJ Psychiatry,* 148, 1627–1637.

Kenny, D. A., Kashy, D., & Bolger, N. (1998). Data analysis in social psychology. In: S. Gilbert, S. Fiske and G. Lindzey (eds.) *The Handbook of Social Psychology*, pp. 223-265. McGraw-Hill: Boston, MA.

Kent, A., & Waller, G. (2000). Childhood emotional abuse and eating pathology. *Clinical*

*Psychology Review*, 20, 887−903.

Kessler, R. C., Avenevoli, S., & Merkigangas, K. R. (2001). Mood disorders in children and adolescents: an epidemiological perspective. *Biological Psychiatry*, 49(12), 1002–1014.

Kirschner, S., Kirschner, D. A., & Rappaport, R. L. (1993). Working with adult incest survivors/the healing journey. New York: Brunner/Mazel.

Kitzinger, J & Barbour, R. S. (1999). *Developing focus group research: Politics, theory, and practice*. Sage Publications.

Klerman, G.L., DiMascio, A., Weissman, M.M., Prusoff, B.A., & Paykel, E.S. (1974). Treatment of depression by drugs and psychotherapy. *American Journal of Psychiatry,* 131*,* 186-191.

Klerman, G. L., Weissman, M. M., & Rounsaville, B. J. (1994). Medication and psychotherapy. In: A. E. Bergin & S. L. Garfield (eds) *Handbook of Psychotherapy and Behaviour Change*. New York, Wiley, pp 734-782.

Klerman, G.L.,Weissman, M.M., Rounsaville, B.J., & Chevron, E.S. (1984). *Interpersonal psychotherapy of depression* (pp. 1–22). New York: Basic Books.

Klinger, E. (1977). Meaning and void: Inner experience and the incentives in peoples lives. University of Minnesota Press.

Koo-Loeb, J. H., Pederson, C., & Girdler, S. S. (1998). Blunted cardiovascular and catecholamine stress reactivity in women with bulimia nervosa. *Psychiatry Research*, 80, 13-27.

Krueger, R., & Casey, M. A. (2000). *Focus groups: A practical guide for applied research* (3rd ed.). Thousand Oaks, CA: Sage.

Kvale, S. (1983). The qualitative research interview: a phenomenological and a hermeneutical mode of understanding. *Journal of Phenomenological Psychology*, *14*, 171–196.

Laberg, S., Törnkvist, Å., & Andersson, G. (2001). Experiences of Patients in Cognitive Behavioural Group Therapy: a Qualitative Study of Eating Disorders. *Scandinavian Journal of Behaviour Therapy*, 30, 161-178.

Laessle, RG., Tuschl, RI. Waadt, S. & Pirke, K.M. (1989). The specific psychopathology of bulimia nervosa: A comparison with restrained and unrestrained (normal) eaters. *Journal of Consulting and Clinical Psychology*, 57, 772-775.

Laghai, A., & Joseph, S. (2000). Attitudes towards emotional expression: factor structure, convergent validity and associations with personality. *British Journal of Medical Psychology,* 73, 381–384.

La Rie, S., Noordenbos, G., Donker, M., & van Furth, E. (2006). Evaluating the treatment of eating disorders from the patients perspective. International Journal of Eating Disorders, 39, 667-676.

Leary, T. (1957). *The interpersonal diagnosis of personality.* NewYork: Ronald.

LeGrange, D. (2005). The Maudsley family-based treatment for adolescent anorexia nervosa. World Psychiatry, 4, 142 – 146.

Le Grange, D., & Gelman, T. (1998). Patients' perspective of treatment in eating disorders: A preliminary study. *South African Journal of Psychology*, *28*, 182–186.

Lepine, J.P., & Pelissolo. (2000). Why take social anxiety disorder seriously? *Depression and Anxiety*, 11, 87–92.

Libet, J. M., & Lewinsohn, P. M. (1973). Concept of social skill with special reference to the behavior of depressed persons. *Journal of Consulting and Clinical Psychology, 40,* 304 312.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. New York: Sage.

Linehan, M. M. (1993). *Cognitive–behavioral treatment of borderline personality disorders*. Guilford: New York, NY.

Luce, K. H., & Crowther, J. H. (1999). The reliability of the eating disorder examination - self report questionnaire version (EDE-Q). *International Journal of Eating Disorders*, 25, 349 351.

Luce, K. H., Crowther, J. H., & Pole, M. (2008). Eating Disorder Examination Questionnaire (EDE-Q): Norms for Undergraduate Women. *Int J Eat Disord*, 41, 273–276.

Maddison, D. (1968). The relevance of conjugal bearevement for preventing psychiatry. *British Journal of Medical Psychology*, 41, 223-233.

Maddison, D., & Walker, W. (1967). Factors affecting the outcome of conjugal bereavement. *British Journal of Psychiatry*, 113, 1057-1067.

Magnusson, C., Finnerty, G., & Pope, R. (2005). Methodological Triangulation in Midwifery Educational Research. *Nurse Researcher*, 12, 30-39

Mahon, J. (2000). Invited paper. Dropping out from psychological treatment for eating disorders: What are the issues? *European Eating Disorders Review*, 8, 198-216.

Markowitz, J. C. (1998). *Interpersonal Psychotherapy for Dysthymic Disorder*. Washington, D.C., American Psychiatric Press

Martin, C. K., Williamson, D. A., & Thaw, J. M. (2000). Criterion validity of the multiaxial assessment of eating disorders symptoms. *International Journal of Eating Disorders*, 28, 303–310.

Marx, E. M., Williams, J. M. G., & Claridge, G. C. (1992). Depression and social problem solving. *Journal of Abnormal Psychology*, 101, 78–86.

Matoff, M., & Matoff, S. (2001). Eating disorder recovery: Learning from the client's healing journey. *Women & Therapy*, *23*, 43–54.

McIntosh, V. V., Bulik, C. M., Mckenzie, J. M., Luty, S. E., & Jordan, J. (2000). Interpersonal psychotherapy for anorexia nervosa. *Int J Eat Disord*, 27, 125–139.

Meiselman, K. C. (1990). Resolving the trauma of incest. San Francisco: Jossey-Bass.

Meyer, C., & Gillings, K. (2004). Parental Bonding and Bulimic Psychopathology: The Mediating Role of Mistrust/Abuse Beliefs. *International Journal of eating Disorders*, 35, 229–233.

Meyer, C., Leung, N., Barry, L., & De Feo, D. (2010). Brief Report. Emotion and Eating Psychopathology: Links with Attitudes Toward Emotional Expression Among Young Women. *International Journal of Eating Disorders*, 43, 187–189.

Meyer, C., Waller, G., Waters, A. (1998). Emotional states and bulimic psychopathology. In: Hoek H, Treasure, & J, Katzman (eds). *The Integration of Neurobiology in the Treatment of Eating Disorders.* Chichester: Wiley, pp. 271–289.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis (*2nd ed.). Thousand Oaks, CA: Sage.

Miller, R. S. (1995). On the nature of embarrassability: shyness, social evaluation, and social skill. Journal of Personality, 63, 315–339.

Milos, G., Spindler, A., Schnyder, U. (2005). Instability of eating disorder diagnoses: prospective study. *The British Journal of Psychiatry*, 187, 573-578.

Mintz, L. B., & O'Halloran, M. S. (2000). The Eating Attitudes Test: Validation With DSM-IV Eating Disorder Criteria. Journal of Personality Assessment, http://www.informaworld.com/smpp/title~db=all~content=t775653663~tab=issueslist~branches=74 - v7474, 489 – 503.

Mintz, L. B., O'Halloran, M. S., & Mulholland, A. M. (1997). Questionnaire for eating disorder diagnoses: reliability and validity of operationalizing DSM-IV criteria into a self-report format. *J Couns Psychol,* 44, 63–79.

Minuchin, S., Rosman, B. L. and Baker, L. (1978) *Psychosomatic Families: Anorexia Nervosa in Context*. Cambridge, MA: Harvard University Press.

Mitchell, J. (1991). A review of controlled trials of psychotherapy for bulimia nervosa. *J Psychosom Res*, 35, 23–31

Mizes, J. S. (1989). Assertion deficits in bulimia nervosa: Assessment via behavioral, self report, and cognitive measures. *Behavior Therapy*, 20, 603-608.

Montgomery, R. L., Haemmerlie, F. M., & Edwards, M. (1991). Social, personal, and interpersonal deficits in socially anxious people. *Journal of social behaviour and personality*, 6, 859-872.

Mitchell, J. E., Pyle, R. L., Hatsukami, D., & Eckert, E. D. (1986). What are atypical eating disorders? *Psychosomatics*, 27, 21–28.

Mizes, J.S. (1994). The Mizes Revised Anorectic Cognitions questionnaire. Unpublished Inventory, Metrohealth Medical Center, OH.

Mizes, J. S., Christiano, B., Madison, J., Post, G., Seime, R., Varnado, P. (2000). Development of the Mizes Anorectic Cognitions Questionnaire-Revised: Psychometric Properties and Factor Structure in a Large Sample of Eating Disorder Patients.

*International Journal of Eating Disorders,* 28, 415–421.

Mizes, J. S., & Klesges, R. C. (1989). Validity, reliability and factor structure of the Anorectic Cognitions Questionnaire. *Addictive Behaviours*, 14, 589-594.

Mond, J. M., Hay, P. J., Rodgers, B., & Owen, C., (2006). Eating Disorder Examination Questionnaire (EDE-Q): Norms for young adult women, *Behaviour Research and Therapy* 44, 53–62

Mond, J. M., Myers, T. C., Crosby, R. D., Hay, P. J., Rodgers, B., Morgan, J. F., Lacey, J. H., & Mitchell, J. E. (2008). Screening for eating disorders in primary care: EDE-Q versus SCOFF. *Behaviour Research and Therapy*, 46, 612-622.

Montgomery, R. L., Haemmerlie, F. M., & Edwards, M. (1991). Social, personal, and interpersonal deficits in socially anxious people. *Journal of social behaviour and personality*, 6, 859-872.

Morgan, D. (1997). Focus groups as qualitative research (Qualitative research methods, Vol. 16). Thousand Oaks C.A.: Sage Publications.

Morrison, T., Waller, G., Meyer, C., Burditt, E., Wright, F., Babbs, M., Gilbert, N. (2003). Social comparison in the eating disorders. *Journal of Nervous and Mental Disease*, 191, 553-555.

Mountford, V., Corstorphine, E., Tomlinson, S., & Waller, G. (2007). Development of a measure to assess invalidating childhood environments in the eating disorders. *Eating Behaviors*, 8, 48−58.

Mufson, L., Dorta, K.P., Moreau, D., & Weissman, M.M. (2004). *Interpersonal Psychotherapy for Depressed Adolescents*, second edition. New York: Guilford.

Myers, R. (1990). *Classical and Modern Regression With Applications* (2nd ed.), Boston: PWS Kent.

Najavits, L. M. (2002). Clinicians views on treating posttramatic stress disorder and substance use disorder. *Journal of Substance Abuse Treatment*, 22, 79-85.

NICE (2004a). Management of depression in primary and secondary care. National Clinical Practice Guideline Number 23

NICE (2004b). Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders.

Nilsson, E. W., Gillberg, C., Gillberg, I. C., Råstam, M. (1999). Ten-year follow up of Adolescent onset anorexia nervosa: Personality disorders. *J Am Acad Child Adolesc Psychiatry*, 38, 1389–1395.

Norman, D.K. & Herzog, D.B. (1984). Persistent social maladjustment in bulimia: A l-year follow-up. *American Joumal of Psychiatry*, 141, 444-446.

Norman, D.K., Herzog, D.B. & Chauncey, S. (1986b). A one-year outcome study of bulimia: Psychological and eating symptom changes in a treatment and nontreatment group. *The International Journal of Eating Disorders*, 5, 47-57.

Offord, A., Turner, H., Cooper, M. (2006). Adolescent Inpatient Treatment for

Anorexia Nervosa: A Qualitative Study Exploring Young Adults' Retrospective Views of Treatment and Discharge. *European Eating Disorders Review*, 14, 377–387.

O'Mahony, J. F., & Hollwey, S. (1995). Eating problems and interpersonal functioning among several groups of women. *Journal of clinical psychology*, 51, 345-351.

Overholser, J. C., & Adams, D. M. (1997). Stressful life events and social support in depressed psychiatric inpatients. In T.W.Miller et al. (1997). *Clinical Disorders and Stressful Life Events*. International Universities Press.

Palmer, B. (2000). Helping people with eating disorders: A clinicians guide to assessment and treatment. Wiley, England. (p. 40).

Palmer, R. L., Christie, M., Cordle, C., Davies, D., & Kenrick, J. (1987). The clinical eating disorders rating instrument (CEDRI); a preliminary description. *International Journal of Eating Disorders*, 6, 9-16.

Parker, G. (1983). *Parental overprotection: A risk factor in psychosocial development.* New York: Grune & Stratton.

Parsons, T. (1951). *The social system*. Chicago: Free Press.

Passi, V. A., Bryson, S. W., & Lock, J. (2002). Assessment of eating disorders in adolescents with anorexia nervosa: Self report questionnaire versus interview. *International Journal of Eating Disorders*, 33, 45-54.

Paykel, E. S., Myers, J. K., Dienelt, M. N., Klerman, G. L., Lindenthal, J. J., & Pepper, M. P. (1969). Life events and depression: A controlled study. *Archives of General Psychiatry*, 21, 753-750.

Pearlin, L. I., & Lieberman, M. A. (1977). Social sources of emotional distress. In R. Simmons (1977). *Research in Community and Mental Health*. JAI Press.

Peat, C., Mitchell, J. E., Hoek, H. W., & Wonderlich, S. A. (2009). Validity and Utility of Subtyping Anorexia Nervosa. *International Journal of Eating Disorders*, 42, 590-594.

Pergami, A., Grassi, L., & Markowitz, J.C. (1999). *Il Trattamento Psicologico della Depressione nell'Infezione da HIV La Psicoterapia Interpersonale*. Milan: Franco Angeli.

Perneger, T. (1998). What's wrong with Bonferroni adjustments, *British Medical Journal*, *316*, 1236-1238.

Pernick, Y., Nichols, J. F., Rauh, M. J., Kern, M., Ji, M., Lawson, M. J., & Wilfley, D. (2006). Disordered eating among a multi-racial/ethnic sample of female high-school athletes. *Journal of Adolescent Health*, 38, 689-695.

Perseius, K., Ojehagan, A., Ekdahl, S., Asberg, M., & Samuelsson, M. (2003). Treatment of suicidal and deliberate self-harming patients with borderline personality disorder using dialectical behavioral therapy: the patients' and the therapists' perceptions. *Archives of Psychiatric Nursing*, 17, 218-227.

Petty, S. C., Sachs-Ericsson, N., & Joiner, T. E. (2004) Interpersonal functioning deficits: temporary or stable characteristics of depressed individuals? Journal of

Affective Disorders, 81, 115– 122.

Pincus, H. A., Davis, W. W., & McQueen, L. E. (1999). 'Subthreshold' mental disorders: a review and synthesis of studies on minor depression and other 'brand names'. *British Journal of Psychiatry*, 174, 288–296.

Pincus, A.L., Lukowitsky, M.R., & Wright, A.G.C. (2010). The interpersonal nexus of personality and psychopathology. In T. Millon, R. F. Krueger, & E. Simonsen (Eds.), Contemporary directions in psychopathology: Toward the DSM-V and ICD-11. New York: Guilford.

Piotrowski, C., Sherry, D., & Keller, J. W. (1985). Psychodiagnostic test usage: A survey of the Society for Personality Assessment. *Journal of Personality Assessment*, 49, 115-119.

Platt, J. J., & Spivack, G. (1975). *Manual for the means-end problems solving* procedure (MEPS): A measure of interpersonal problem-solving skill, Hahnemann Medical College And Hospital, Philadelphia.

Podar, I., & Allik, J. (2008). A cross-cultural comparison of the eating disorder inventory. *International Journal of Eating Disorders*, 42, 346-355.

Pope, H. G., Hudson, J. I., Yurgelun-Todd, D. Hudson, M. S. (2006). Prevalence of anorexia nervosa and bulimia in three student populations. *International Journal of Eating Disorders*, 3, 45 – 51.

Potter, J., & Wetherell, M. (1987). *Discourse and social psychology. Beyond attitudes and behaviour.* London: Sage.

Pruitt, J.A., Kappius, RE. & Gorman, P.W. (1992). Bulimia and fear of intimacy. *Journal of Clinical Psvchology*, 48, 472-476.

Puig-Antich, J., Kaufman, J., Ryan, N. D., Williamson, D., Dahl, R. E., Lukens, E, et al. (1993). The psychosocial functioning and family environment of depressed adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 32(2), 244–253.

Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the nutrition society*, 63, 655–660.

Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401.

Raskin, A., Schulterbrandt, J., Reatig, N., & Rice, C. E. (1967). Factors of psychopathology in interview, ward behavior, and self-report ratings of hospitalized depressives. *Journal of Consulting Psychology*, 31, 270-8.

Råstam, M., Gillberg, I. C., Gillberg, C. (1995). Anorexia nervosa 6 years after onset. II. Comorbid psychiatric problems. *Compr Psychiatry*, 36, 70–76.

Råstam, M., Gillberg, C., & Wentz, E. (2003). Outcome of teenage-onset anorexia nervosa in a Swedish community-based sample. *Eur Child Adolesc Psychiatry*, 12, I78–I90.

Reid, M., Burr, J., Williams, S., & Hammersley, R. (2008). Eating Disorders Patients' Views on Their Disorders and on an Outpatient Service: A Qualitative Study. *Journal of Health Psychology,* 13, 956-960.

Reeger, E., Touyz, S., Schotte, D., Beumont, P., Russell, J., Clarke, S., Kohn, R., & Griffiths, R. (2000). Development of an instrument to assess readiness to recover in anorexia nervosa. *International Journal of Eating Disorders, 28*, 387–396.

Reiger, E. Van Buren, D. J., Bishop, M., Tanofsky-Kraff, M., Welch, R., & Wilfley, D. E. (2010). An eating disorder specific model of interpersonal psychotherapy (IPT-ED): causal pathways and treatment implications. *Clinical Psychology Review*, 4, 400-410.

Reinherz, H. Z., Giaconia, R. M., Hauf, A. M. C., Wasserman, M. S., & Silverman, A. B. (1999). Major depression in the transition to adulthood: Risks and impairments. *Journal of Abnormal Psychology*, 108(3), 500–510.

Rennie, D. L. (1994). Clients' deference in psychotherapy. Special section: qualitative research in counseling process and outcome. *Journal of Counseling Psychology, 41*, 427–437.

Ricca, V., Mannucci, E., Mezzani, B., Di Bernardo, M., Zucchi, T., Paionni, A. (2001). Psychopathological and clinical features of outpatients with an eating disorder not otherwise specified. *Eating and Weight Disorders*, 6, 157–165.

Rodebaugh, T. L., Woods, C. M., Thissen, D. M., Heimberg, R. G., Chambless, D. L., & Rapee, R. M. (2004). More information from fewer questions: the factor structure and item properties of the original and Brief Fear of Negative Evaluation Scale. Psychological Assessment, 2, 169–181.

Rook, K. S., Pietromonaco, P. R, & Lewis, M. A. (1994). When are dysphoric individuals distressing to others and vice versa? Effects of friendship similarity and interaction task. *J Pers Soc Psychol,* 67, 548–559.

Root, M. P. P., & Fallon, P. (1989). Treating the victimized bulimic. *Journal of Interpersonal Violence*, 1, 90−100.

Rorty, M., Yager, J., Buckwalter, G., Rossotto, E. (1999). Social Support, Social Adjustment, and Recovery Status in Bulimia Nervosa. *International Journal of Eating Disorders*, 26, 1-12.

Rose, K. S., Cooper, M. J., & Turner, H. (2006). The eating disorder belief questionnaire: Psychometric properties in an adolescent sample. Eating Behaviors, 7, 410-418.

Rosen, J. C., Jones, A., Ramirez, E., & Waxman, S. (1996). Body shape questionnaire: studies of validity and reliability. *International Journal of Eating Disorders*, 20(3), 315-319.

Rosenvinge, J. H., & Klusmeier, A. K. (2000). Treatment for Eating Disorders from a Patient Satisfaction Perspective: a Norwegian Replication of a British Study. *European Eating Disorder Review*, 8, 293-300.

Roth, D.M. & Ross, D. R. (1988). Long-term cognitive-interpersonal group therapy for eating disorders. *International Journal of Group Psychotherapy*, 38, 491-510.

Ruderman, A.J. & Besbeas, M. (1992). Psychological characteristics of dieters and bulimics. *Journal of Abnormal Psychology*, 101, 383-390.

Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W., & Haynes, R. B.

(2000). Evidence-Based Medicine: How to Practice and Teach EBM. Churchill Livingstone.

Safran, J. D., & Greenberg, L. S. (1987). Affect and the unconscious: A cognitive perspective. In R. Stern (Ed.), *Theories of the unconscious* (pp. 191-212). Hillsdale, NJ: The Analytic Press.

Safran, J. D., & Greenberg, L. S. (1988). Feeling, thinking and acting: A cognitive framework for psychotherapy integration, *Journal* of Cognitive *Psychotherapy:* An *International Quarterly, 2,* 109-130.

Sale, J., Lohfeld, L., & Brazil, K. (2002). Revisiting the Quantitative-Qualitative Debate: Implications for Mixed-Methods Research. *Quality & Quantity*, 36, 43 - 53.

Sandelowski M. (1998) The call to experts in qualitative research. *Research in Nursing and Health*, 21, 467–471.

Schulte, D., & Eifert, G. H. (2002). What to do when manuals fail? The dual model of psychotherapy. *Clinical Psychology: Science and Practice*, 9, 312–328.

Serpell, L., & Treasure, J. (2002). Bulimia Nervosa: Friend or Foe? The pros and cons of bulimia nervosa. *International Journal of Eating Disorders*, 32, 164-170.

Serpell, L., Treasure, J., Teasdale, J., & Sullivan, V. (1999). Anorexia nervosa: Friend or foe? A qualitative analysis of the themes expressed in letters written by anorexia nervosa patients. International Journal of Eating Disorders, 25, 177–186.

Sifneos, P.E. (1973) The prevalence of alexithymic characteristics in psychosomatic patients. *Psychotherapy and Psychosomatics*, 26, 270-285.

Sim, J. (1998). Collecting and analysing qualitative data: issues raised by the focus group. Journal of Advanced Nursing, 28, 345-352.

Simpson, J. A., & Tran, S. (2006). The needs, benefits and perils of close relationships. In: P. Noller & J. A. Feeney (Eds.) *Close relationships: Functions, forms and processes.* Psychology Press.

Schmidt, U., Humfress, H., & Treasure, J. (1998). The role of general family environment and sexual and physical abuse in the origins of eating disorders. European Eating Disorders Review, 5, 184−207.

Schoemaker, C., Verbraak, M., Breteler, R., & van der Staak, C. (1997). The discriminant validity of the Eating Disorder Inventory-2. *British Journal of Clinical Psychology*, 36(4), 627-629.

Schulman, R.G., Kinder, B.N., Powers, P.S., Prange, M., & Gleghorn, A. (1986). The development of a scale to measure cognitive distortions in bulimia. *Journal of Personality Assessment*, 50, 630–639.

Schwalberg, M. D., Barlow, D. H., Alger, S. A., & Howard, L. J. (1992). Comparison of bulimics obese binge-eaters social phobics and individuals with panic disorder on co-morbidity across DSM-III-R anxiety disorders. *J Abnorm Psychol*, 101, 675 681.

Silverman, D. (2000). *Doing qualitative research: A practical handbook*. London: Sage.

Smith, J. A. (1995). Semi-structured interviewing and qualititative analysis. In J. A. Smith, R. Harre´, & L. Van Langenhove, (Eds), *Rethinking Methods in Psychology* (pp. 9–26). London: Sage.

Smith, M. C., & Thelen, M. H. (1984) Development and validation of a test for bulimia. *Journal of Consulting and Clinical Psychology*, 52, 863-872.

Smolak. L., & Murnen, S. K. (2002). A meta-analytic examination of the relationship between child sexual abuse and eating disorders. *International Journal of Eating Disorders*, 31(2), 136–150.

Smolak, L., Striegel-Moore, R. H. (2004). Future directions in eating disorder and obesity research. In: Thompson JK, editor. Handbook of Eating Disorders and Obesity. Hoboken, NJ: John Wiley & Sons, 738–53.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In: S. Leinhardt (ed.) Sociological Methodology, pp. 290-312. American Sociological Association: Washington DC.

Soldz, S., Budman, S., Demby, A., & Merry, J. (1995). A short form of the inventory of interpersonal circumplex scales. *Assessment*, 2, 53-63.

Spielberger, C. D. (1989). State-Trait Anxiety Inventory: a comprehensive bibliography. Palo Alto, CA: Consulting Psychologists Press.

Sroufe, A. (1988). The role of infant-caregiver attachment in development. In: J. Belsky & T. Nezworski (Eds) (1988). *Clinical implications of attachment*. Routledge.

Steer, R. A., Beck, A. T., & Garrison, B. (1986). Applications of the Beck Depression Inventory. In N. Sartorius & T. A. Ban (Eds.), *Assessment* of depression (pp .121-142). Geneva, Switzerland: World Health Organization.

Steiger, H., Gauvin, L., Jabalpurwala, S., Seguin, J. R., & Stotl, S. (1999). Hypersensitivity to social interactions in bulimic syndromes: relationship to binge eating. *Journal of Consulting and Clinical Psychology*, *67*, 765–775.

Steiger. H.. Leung. F.Y.K. & Thibaudeau, 1. (1993). Prognostic value of pretreatment social adaptation in bulimia nervosa. *International Journal of Eating Disorders*, 14, 269-276.

Stein, R. I., Kenardy, J., Wiseman, C. V., Dounchis, J. Z., Arnow, B. A., & Wilfley, D. E. (2007). What's driving the binge in binge eating disorder?: A prospective examination of precursors and consequences. *International Journal of Eating Disorders, 40*(3), 195-203.

Steinhausen, H. C. (2002). The outcome of anorexia nervosa in the 20th century. *Am J Psychiatry*, 159, 1284 – 1293.

Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin*, 128, 825-848.

Stice, E., Presnell, K., Gau, J., & Shaw, H. (2007). Testing mediators of intervention effects in randomized controlled trials: An evaluation of two eating disorder prevention programs. *Journal of Consulting Clinical Psychology*, 75, 20-32.

Stice, E., Presnell, K., & Spangler, D. (2002). Risk factors for binge eating onset in adolescent girls: A 2-year prospective investigation. *Health Psychology*, 21, 131-138.

Stice, E., Ziemba, C., Margolis, J., & Flick, P. (1996). The dual pathway model differentiates bulimics, subclinical bulimics, and controls: Testing the continuity hypothesis*. *Behavior Therapy, 27*(4), 531-549.

Stickney, M. I., Miltenberger, R. G., & Wolff, G. (1999). A descriptive analysis of factors Contributing to binge eating. *Journal of Behavior Therapy and Experimental Psychiatry*, 30, 177 – 189.

Stravynski, A., & Shahar, A. (1983). The treatment of social dysfunction in nonpsychotic outpatients: A review. *Journal of Nervous and Mental Disease, 171,* 721-728.

Striegel-Moore, R., & Bulik, C. (2007). Risk factors for eating disorders. *American Psychologist*, 62, 181-198.

Striegel-Moore, R. H., Dohm, F. A., Kraemer, H. C., Taylor, C. B., Daniels, S., Crawford, P. B., & Schreiber, G. B. (2003). Eating disorders in white and black women. *American Journal of Psychiatry*, 160, 1326-1331.

Streigel-Moore, E. H., Silberstein, L. R., & Rodin, J. 1986). Toward an understanding of risk factors for bulimia. *Am. J. Psychiatry*, 41, 246-263.

Stringer, H., Waller, G., & Meyer, C. (Under consideration). What cognitive-behavioral techniques do therapists report using when delivering cognitive-behavioral therapy for the eating disorders?

Stunkard, A. J., & Allison, K. C. (2003). Binge eating disorder - disorder or marker? *International Journal of Eating Disorders*, 34, 107-116.

Swan, S., & Andrews, B. (2003). The relationship between shame, eating disorders and disclosure in treatment. *British Journal of Clinical Psychology*, 42, 367−378.

Sullivan, H. (1953). *The interpersonal theory of psychiatry*. W. W. Norton & Company.

Sullivan, R. J., & Allen, J. S. (1999).Social deficits associated with schizophrenia defined in terms of interpersonal Machiavellianism. *Acta Psychiatr Scand*, 99, 148- 54.

Suzuki, K., Takeda, A., Shirakura, K., Yoshino, A. (2003). Comparative study concerning social skills of patients at rehabilitation facilities with eating disorders and schizophrenia. *Seishin Igaku (Clinical Psychiatry*)*,* 45, 145-151.

Swinbourne, J. M., & Touyz, S. W. (2007). The co-morbidity of eating disorders and anxiety disorders: a review. *European Eating Disorders Review*, 15, 253-274.

Svaldi, J., Dorn, C., & Trentowska, M. (In Press). Effectiveness for interpersonal problem solving is reduced in women with binge eating disorder. *European Eating Disorders Review*.

Sysko, R., Walsh, B. T., & Fairburn, C. G. (2005). Eating Disorder Examination Questionnaire as a measure of change in patients with bulimia nervosa. *International Journal of Eating Disorders*, 37, 100-106.

Taraidsen, K. W., Eriksen, L., Gotestam, K. G. (1996). Prevalence of eating disorders among norwegian women and men in a psychiatric outpatient unit. Int J Eat Disorder, 20, 185 90.

Taranis, T., & Meyer, C. (2010). Perfectionism and compulsive exercise among female exercisers: High personal standards or self-criticism? *Personality and Individual Differences*, 49, 3–7.

Taylor, S. (1993). The structure of fundamental fears. *J Behav Ther Exp Psychiatry*, 24, 289-299.

Taylor, S. J., & Bogdan, R. (1984). *Introduction to qualitative research methods: The search for meanings.* New York: John Wiley & Sons.

Taylor, G. J., Parker, J. D. A., Bagby, R. M., & Bourke, M. P. (1996). Relationships between alexithymia and psychological characteristics associated with eating disorders. *Journal of Psychosomatic Research*, 41, 561–568

Theil, A., & Paul, T. (2006). Test–retest reliability of the Eating Disorder Inventory 2. *Journal of Psychosomatic research*, 61(4), 567-569.

Thelen, M. H., Farmer, J., Wonderlich, S., & Smith, M. (1991). A revision of the Bulimia Test: The BULIT-R. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 119-124.

Thomas, J. J., Vartanian, L. R., & Brownell, K. D. (2009). The relationship between eating disorder not otherwise specified (EDNOS) and officially recognized eating disorders: Meta-analysis and implications for DSM. *Psychological Bulletin*, 135, 407-433.

Thelen, M. H., Farmer, J., Wonderlich, S., Smith, M. (1991). A revision of the Bulimia Test: the BULIT-R. *Psychological Assessment*, 3, 119-124.

Thompson, M., & Schwartz, D. (1980). Life adjustment of women with anorexia nervosa and anorexic-like behavior. *International Journal of Eating Disorders*, 1, 47–60.

Tiller, J. M., Sloane, G., Schmidt, U., Troop, N., Power, M., & Treasure, J. L. (1997). Social Support in Patients with Anorexia Nervosa and Bulimia Nervosa. *International Journal of Eating Disorders*, 21, 31–38.

Tozzi, F., Sullivan, P., Fear, J., McKenzie, J., & Bulik, C. (2003). Causes and recovery in anorexia nervosa: The patient's perspective. *International Journal of Eating Disorders*, *33*, 143–154.

Touchette, E., Henegar, A., Godart, N. T., Pryor, L., Falissard, B., Tremblay, R. E., et al. (2011). Subclinical eating disorders and their comorbidity with mood and anxiety disorders in adolescent girls. *Psychiatry Research,* 185, 185-192.

Tozzi, F., Sullivan, P., Fear, J., McKenzie, J., & Bulik, C. (2003). Causes and recovery in anorexia nervosa: The patient's perspective. *International Journal of Eating Disorders*, *33*, 143–154.

Travis, L. I., & Sigman, M. (1998). Social deficits and interpersonal relationships in autism. *Mental Retardation and Developmental Disabilities Research Reviews*, 4, 65–72.

Treasure, J., Katzman, M., Schmidt, U., Troop, N., Todd, G., & de Silva, P. (1999). Engagement and outcome in the treatment of bulimia nervosa: first phase of a sequential design comparing motivation enhancment therapy and cognitive behavioural therapy. *Behaviour Research and Therapy*, 37, 405-418.

Treasure, J.L. & Schmidt, U. (2002). Anorexia nervosa. *Clin Evid, 8,* 903–913.

Troop, N. A., Allan, S., Treasure, J. L., & Katzman, M. (2003). Social comparison and submissive behaviour in eating disorder patients. *Psychology and Psychotherapy: Theory, Research and Practice*, 76, 237–249.

Troop, N. A., Holbrey, A., & Treasure, J. L. (1998). Stress, coping, and crisis support in eating disorders. *International Journal of Eating Disorders*, 24, 157-166.

Trower, P. (1980). Situational analysis of the components and processes of behavior of socially skilled and unskilled patients. *Journal of Consulting and Clinical Psychology, 48,* 327-339.

Tsiantas, G., King, R. M. (2001). Similarities in body image in sisters: the role of sociocultural internalization and social comparison. *Eat Disord*, 9, 141–158.

Turnbull, S., Ward, A., Treasure, J., Hick, J., & Derby, L.(1996) The demand for eating disorder care. An epidemiological study using the general practice research database. *British Journal of Psychiatry*, 169, 705-712.

Turner, H., & Bryant-Waugh, R. (2004). Eating disorder not otherwise specified (EDNOS): Profiles of clients presenting at a community eating disorder service. *European Eating Disorders Review*, 12, 18–26.

Uher, R., Murphy, T., Brammer, M., Dalgleish, T., Phillips, M., Ng, V., Andrew, C., Williams, S., Campbell, I., Treasure, J. (2004). Meidla prefrontal cortex activity associated with symptom provocation in eating disorders. *American Journal of Psychiatry*, 161, 1238-1246.

van Buren, D. J., & Williamson, D. A. (2006). Marital relationships and conflict resolution skills of bulimics. *International Journal of Eating Disorders*, 7, 735 - 741.

Van den Broucke, S., Vandereycken, W., & Vertommen, H. (1995). Marital communication in eating disorder patients: A controlled observational study. *International Journal of Eating Disorders*, 17, 1–21.

Vanderlinden, J., Dalle-Grave, R., Vandereycken, W., Noorduin, C. (2001). Which factors do provoke binge eating? An exploratory study in female students. *Eating Behaviors*, 2, 79–83.

Vanheule, S., Desmet, M., & Meganck, R. (2007). Alexithymia and interpersonal problems. *Journal of Clinical Psychology*, 63, 109-117.

van Hoeken, D., Seidell, J.C., & Hoek, H.W. (2003). Epidemiology. In J.L. Treasure, U. Schmidt, & E.F. van Furth (Eds.), *Handbook of eating disorders* (pp. 11–34). Chichester: Wiley.

van Hoeken, D., Veling, W., Sinke, S., Mitchell, J. E., & Hoek, H. W. (2009). The Validity and Utility of Subtyping Bulimia Nervosa. *International Journal of Eating Disorders*, 42, 595 602.

Vitousek, K. B. (1997). Feminist perspectives on the eating disorders [Keynote address]. Paper presented at the ED 97: The Third London International Conference on Eating Disorders, London. (April)

Vitousek, K. B., Watson, S., & Wilson, T. (1998). Enhancing motivation for change in Treatment resistant eating disorders. *Clinical Psychology Review*, 18, 391-420.

Wade, T. D., Bergin, J. L., Martin, N. G., Gillespie, N. A., & Fairburn, C. G. (2006). A transdiagnostic approach to understanding eating disorders. *The Journal of Nervous and Mental Disease, 194*(7), 510-517.

Wagner, S., Halmi, K.A. & Maguire. T.V. (1987). The sense of personal ineffectiveness in patients with eating disorders: One construct or several? *International Journal of Eating Disorders*, 2, 495-505.

Walker, K. N., MacBride, A., & Vachon, M. L. S. (1977). Social support networks and the crisis of bereavement. *Social Science and Medicine*, *11*, 35-41.

Walker, O., Strong, M., Atchinson, R., Saunders, J., Abbott, J. (2007). A qualitative study of primary care clinicians views of treating childhood obesity. *BMC Family Practice*, 8, 1-7.

Waller, G. (2009). Evidence-based treatment and therapist drift. *Behaviour Research and Therapy*, 47, 119-127.

Waller, G. (1993). Why do we diagnose different types of eating disorder? Arguments for a Change in Research and Clinical Practice. *European Eating Disorders Review*, 1, 74-89.

Waller, G., Corstorphine, E., & Mountford, V. (2007). The role of emotional abuse in the eating disorders: Implications for treatment. *Eat Disord*, 15, 317–331.

Waller, G., Kennerley, H., & Ohanian, V. (2007). Schema-focused cognitive behavioral therapy with eating disorders. In L. P. Riso, P. L. du Toit, D. J. Stein, & J. E. Young (Eds.), *Cognitive schemas and core beliefs in psychiatric disorders: A scientist–practitioner guide* (pp. 139−175). New York: American Psychological Association.

Walters, E. E., & Kendler, K. S. (1995). Anorexia nervosa and anorexic-like syndromes in a population-based female twin sample. *AmJ Psychiatry,* 152, 64–71.

Ward, A., Ramsay, R., & Treasure, J. (2000). Attachment research in eating disorders. *British Journal of Medical Psychology*, 73, 35–51.

Waters, A., Hill, A., & Waller, G. (2001). Internal and external antecedents of binge eating episodes in a group of women with bulimia nervosa. *Int J Eat Disord*, 29, 17–22.

Watson, H. J., Raykos, B. C., Street, H., Fursland, A., & Nathan, P. R. (2011). Mediators between perfectionism and eating disorder psychopathology: shape and weight overvaluation and conditional goal-setting. *International Journal of Eating Disorders*, 44, 142 149.

Weeks, J.W., Heimberg, R. G., Fresco, D. M., Hart, T. A., Turk, C. L., Schneier, F. R., et al.

(2005). Empirical validation and psychometric evaluation of the Brief Fear of Negative Evaluation Scale in patients with social anxiety disorder. Psychological Assessment, 17, 179–190.

Weissman, M.M., & Bothwell, S. (1976). Assessment of social adjustment by patient self report. *Archives of General Psychiatry*, 33, 1111–1115.

Weissman, M. M., Markowitz, J. C., & Klerman, G. L. (2000). *Comprehensive guide to interpersonal psychotherapy.* Basic Books: New York.

Weissman, M. M., Markowitz, J. C., & Klerman, G. L. (2007). *Clinicians quick guide to interpersonal psychotherapy*. Oxford University Press, USA.

Welsh, G., Thompson, L., & Hall, A. (1993). The BULIT-R: its reliability and clinical validity as a screening tool for DSM-III-R bulimia nervosa in a female tertiary education population. International Journal of Eating Disorders, 14(1), 95-105.

Wentz, E, Gillberg C, Gillberg IC, Råstam M. (2001). Ten-year follow-up of adolescent-onset anorexia nervosa: Psychiatric disorders and overall functioning scales. *J Child Psychol Psychiatry*, 42, 613–622.

Westenhoefer, J. (2001). Prevalence of eating disorders and weight control practices in Germany in 1990 and 1997. *International Journal of Eating Disorders*, 29, 477–481.

Whight, D., McGrain, L., Langham, C., Baggott, J., Meadows, L., & Arcelus, J. (2010). A new version of interpersonal psychotherapy for bulimic disorders. Available online at http://www.wix.com//leicesteript/ipt-leicester

Whiteside, U., Chen, E., Neighbors, C., Hunter, D., Lo, T., Larimer, M. (2007). Difficulties Regulating emotions: Do binge eaters have fewer strategies to modulate and tolerate negative affect? *Eat Behav*, 8, 162–169.

Whitney, J., Easter, A., & Tchanturia, K. (2008). Service Users' Feedback on Cognitive Training in the Treatment of Anorexia Nervosa: A Qualitative Study. *International Journal of Eating Disorders*, 41, 542-550.

Wildes, J. E., Marcus, M. D., Gaskill, J. A., & Ringham, R. (2007). Depressive and manic hypomanic spectrum psychopathology in patients with anorexia nervosa. *Comprehensive Psychiatry*, 48, 413-418.

Wilfley, D. E., Agras, W. S., Telch, C. F., Rossiter, E. M., Schneider, J. A., Cole, A. G., Sifford, L., & Raeburn, S. D. (1993). Group cognitive-behavioral therapy and group interpersonal psychotherapy for the nonpurging bulimic individual: A controlled comparison. *Journal of Consulting and Clinical Psychology,* 61, 296-305.

Wilfley, D. E., Schwartz, M. B., Spurrell, B., & Fairburn, C. G. (1997). Assessing the specific psychopathology of binge eating disorder patients: Interview or self report? *Behaviour Research and Therapy*, 35(12), 1151-1159.

Wilfley, D., Stein, R., & Welch, R. (2003). Interpersonal Psychotherapy. In J. Treasure, U. Smith & E. van Furth (2003). *Handbook of eating disorders*. John Wiley and Sons.

Wilfley, D. E., Welch, R. R., Stein, R. I., Spurrell, E. B., Cohen, L. R., Saelens, B. E., Dounchis, J. Z., Frank, M. A., Wiseman, C. V., & Matt, G. E. (2002). A randomized

comparison of group cognitive-behavioral therapy and group interpersonal psychotherapy for the treatment of overweight individuals with binge-eating disorder. *Archives of General Psychiatry*, 59, 713-721.

Wilfley, D. E., Wilson, G. T., & Agras, W. S. (2003). The clinical significance of binge eating disorder. *International Journal of Eating Disorders*, 34, 96–106.

Wilkinson, S. (2003). Focus groups. In: J. Smith (2003). *Qualitative Psychology: A Practical Guide to Research Methods*. Sage.

Wilkinson, S. (2004). *Qualitative research: Theory, method and practice*. Cambridge University Press.

Wilkinson, M. J., Barczak, P. (1988). Psychiatric screening in general practice: comparison of the general health questionnaire and the hospital anxiety depression scale. *J R Coll Gen Pract*, 38, 311-313.

Williams, M., & Broadbent, K. (1986). Autobiographical memory in attempted suicide patients. *Journal of Abnormal Psychology*, 95, 144-149.

Williams, G.J., Power, K., Millar, H.R. and Freeman, C.P. (1993). Comparison of eating disorders and other dietary/weight groups on measures of perceived control, assertiveness, self-esteem, and self-directed hostility. *International Journal of Eating Disorders*, 14, pp. 27–32.

Williamson, D. A. (1990). *Assessment of the eating disorders (2nd edition)*. Chichester: Wiley.

Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method.* Open University Press.

Wilson, G. T. (1993). *Assessment of binge eating*. In C. G. Fairburn & G. T. Wilson (Eds.) *Binge eating: Nature assessment and treatment*. London: Guilford.

Wilson, G. T., & Smith, D. (1989). Assessment of bulimia nervosa: An evaluation of the Eating Disorders Examination. *International Journal of Eating Disorders*, 8, 173-179.

Wilson, G. T., & Sysko, R. (2009). Frequency of Binge Eating Episodes in Bulimia Nervosa and Binge Eating Disorder: Diagnostic Considerations. *International Journal of Eating Disorders*, 42, 603-610.

Wolk, S. L., Loeb, K. L., & Walsh, B. T. (2005). Assessment of patients with anorexia nervosa: Interview versus self-report. *International Journal of Eating Disorders*, 37, 92-99.

World Health Organisation (1992). The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines. Geneva. World Health Organisation.

Youngren, M. A., & Lewinsohn, P. M. (1980). The functional relation between depression and problematic behavior. *Journal of Abnormal Psychology, 89,* 333-341.

Zigmond, A. S. & Snaith, R. P. (1983). The hospital anxiety and depression scale. Acta Psychiatrica Scandinavia, 67, 361-370.

Zung W. W. (1965). A self-rating depression scale. *Arch Gen Psychiatry,* 12, 63-70.

## 11. Appendix

### Appendix A: Demographic information sheet

**Section A**: This section contains general demographic questions and a health screen

**Instructions**
Please complete all the following information as accurately as possible.

**Sex:** Female □ Male □ (please tick box that applies)

**Age:**……..years……months

**Height:**……..cm, or feet/inches (please delete as appropriate)

**Weight:**……....kg, or stones/pounds (please delete as appropriate)

**Language Status:** Is English your first language? Yes □ No □ (tick box that applies)

**Health Status:** Are you currently, or have you previously received treatment for an eating disorder? (tick box that applies)

No □ Currently □ Previously □

**Appendix B: EDE-Q**

The following questions are concerned with the PAST FOUR WEEKS ONLY (28 days). Please read each question carefully and circle the appropriate number on the right. Please answer all the questions.

| | **On how many days out of the past 28 days …….** | **No days** | **1-5 days** | **6-12 days** | **13-15 days** | **16-22 days** | **23-27 days** | **Every day** |
|---|---|---|---|---|---|---|---|---|
| 1 | Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | Have you gone for long periods of time (8 hours or more) without eating anything in order to influence your shape or weight? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | Have you tried to avoid eating any foods which you like in order to influence your shape or weight? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | Have you tried to follow definite rules regarding your eating in order to influence your shape or weight; for example, a calorie limit, a set amount of food, or rules about what or when you should eat? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | Have you wanted your stomach to be empty? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | Has thinking about food or its calorie content made it much more difficult to concentrate on things you are interested in; for example, read, watch TV, or follow a conversation? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | Have you been afraid of losing control over eating? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. | Have you had episodes of binge eating? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. | Have you eaten in secret? (Do not count binges.) | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. | Have you definitely wanted your stomach to be flat? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. | Has thinking about shape or weight made it more difficult to concentrate on things you are interested in; for example read, watch TV or follow a conversation? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. | Have you had a definite fear that you might gain weight or become fat? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. | Have you felt fat? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. | Have you had a strong desire to lose weight? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

**Over the past four weeks (28 days)**

15. On what proportion of times that you have eaten have you felt guilty because of the effect on your shape or weight? (Do not count binges.)

    (Circle the number which applies.)

    0 – None of the times
    1 – A few of the times
    2 – Less than half the times
    3 – Half the times
    4 – More than half the times
    5 – Most of the times
    6 – Every time

16. Over the past four weeks (28 days), have there been any times when you have felt that you have eaten what other people would regard as an unusually large amount of food given the circumstances? (Please circle YES or NO and put appropriate number in box.) YES NO

17. How many such episodes have you had over the past four weeks? ( )

18. During how many of these episodes of overeating did you have a sense of having lost control over your eating? ( )

19. Have you had other episodes of eating in which you have had a sense of having lost control and eaten too much, but have <u>not</u> eaten an unusually large amount of food given the circumstances? YES NO

20. How many such episodes have you had over the past four weeks? ( )

21. Over the past four weeks have you made yourself sick (vomit) as a means of controlling your shape or weight? YES NO

22. How many times have you done this over the past four weeks? ( )

23. Have you taken laxatives as a means of controlling your shape or weight? YES NO

24. How many times have you done this over the past four weeks? ( )

25. Have you taken diuretics (water tablets) as a means of controlling your shape or weight? YES NO

26. How many times have you done this over the past four weeks? ( )

27. Have you exercised <u>hard</u> as a means of controlling your shape or weight? YES NO

28. How many times have you done this over the past four weeks? ( )

| **Over the past four weeks (28 days) (please circle the number which best describes your behaviour.)** | **Not at all** | | **Slightly** | **Moderately** | | | **Markedly** |
|---|---|---|---|---|---|---|---|
| 29. Has your weight influenced how you think about (judge) yourself as a person? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 30. Has your shape influenced how you think about (judge) yourself as a person? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 31. How much would it upset you if you had to weigh yourself once a week for the next four weeks? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 32. How dissatisfied have you felt about your weight? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 33. How dissatisfied have you felt about your shape? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 34. How concerned have you been about other people seeing you eat? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 35. How uncomfortable have you felt seeing your body; for example, in the mirror, in shop window reflections, while undressing or taking a bath or shower? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 36. How uncomfortable have you felt about others seeing your body: for example, in communal changing rooms, when swimming or wearing tight clothes? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

**Appendix C: HADS**

Please complete the following sentences by ticking the box next to the most appropriate statement.

**1. I feel tense or 'wound up':**

Most of the time…… ☐
A lot of the time…… ☐
Time to time, occasionally…….. ☐
Not at all…… ☐

**2. I feel as if I am slowed down:**

Nearly all the time…… ☐
Very often…… ☐
Sometimes…… ☐
Not at all…… ☐

**3. I still enjoy the things I used to enjoy:**

Definitely as much…… ☐
Not quite so much…… ☐
Only a little…… ☐
Hardly at all…… ☐

**4. I get a sort of frightened feeling like 'butterflies' in the stomach:**

Not at all…… ☐
Occasionally…… ☐
Quite often…… ☐
Very often…… ☐

**5. I get a sort of frightened feeling as if something awful is about to happen:**

Very definitely and quite badly…… ☐
Yes, but not too badly…… ☐
A little, but it doesn't worry me …….. ☐
Not at all…… ☐

**6. I have lost interest in my appearance:**

Definitely …… ☐
I don't take so much care as I should ☐
I may not take quite as much care…. ☐
I take just as much care as ever……. ☐

**7. I can laugh and see the funny side of things:**

As much as I always could……... ☐
Not quite so much now…… ☐
Definitely not so much now…….. ☐
Not at all…….. ☐

**8. I feel restless as if I have to be on the move:**

Very much indeed …… ☐
Quite a lot…… ☐
Not very much…… ☐
Not at all…… ☐

**9. Worrying thoughts go through my mind:**

A great deal of the time……..…… ☐
A lot of the time…… ☐
From time to time, but not too often... ☐
Only occasionally…… . ☐

**10. I look forward with enjoyment to things:**

As much as ever I did…… ☐
Rather less than I used to…… ☐
Definitely less than I used to…… ☐
Hardly at all…… ☐

**11. I feel cheerful:**

Not at all…… ☐
Not often…… ☐
Sometimes…….. . ☐
Most of the time …… ☐

**12. I get sudden feelings of panic:**

Very often indeed …….. ☐
Quite often……... ☐
Not very often …… ☐
Not at all……... ☐

**13. I can sit at ease and feel relaxed:**

| | |
|---|---|
| Definitely …… | ☐ |
| Usually …….. | ☐ |
| Not often…… | ☐ |
| Not at all …… | ☐ |

**14. I can enjoy a good book or radio or TV programme:**

| | |
|---|---|
| Often …… | ☐ |
| Sometimes…… | ☐ |
| Not often …… | ☐ |
| Very seldom …….. | ☐ |

**Appendix D: IIP-SC**

Here is a list of problems that people report in relating to other people. Please read the list below, and for each item, consider whether that item has been a problem for you with respect to any significant person in your life. Then select the number that describes how distressing that problem has been, and circle a number.

| **It is hard for me to:** | **Not at all** | **A little bit** | **Moder-ately** | **Quite a bit** | **Extremely** |
|---|---|---|---|---|---|
| 1. Join in on groups | 0 | 1 | 2 | 3 | 4 |
| 2. Keep things private from other people | 0 | 1 | 2 | 3 | 4 |
| 3. Tell a person to stop bothering me | 0 | 1 | 2 | 3 | 4 |
| 4. Introduce myself to new people | 0 | 1 | 2 | 3 | 4 |
| 5. Confront people with problems that come up | 0 | 1 | 2 | 3 | 4 |
| 6. Be assertive with another person | 0 | 1 | 2 | 3 | 4 |
| 7. Let other people know when I am angry | 0 | 1 | 2 | 3 | 4 |
| 8. Socialise with other people | 0 | 1 | 2 | 3 | 4 |
| 9. Show affection to people | 0 | 1 | 2 | 3 | 4 |
| 10. Understand another persons point of view | 0 | 1 | 2 | 3 | 4 |
| 11. Be firm when I need to be | 0 | 1 | 2 | 3 | 4 |
| 12. Experience a feeling of love for another person | 0 | 1 | 2 | 3 | 4 |
| 13. Be supportive of another persons goals in life | 0 | 1 | 2 | 3 | 4 |
| 14. Feel close to other people | 0 | 1 | 2 | 3 | 4 |
| 15. Feel good about another persons happiness | 0 | 1 | 2 | 3 | 4 |
| 16. Ask other people to get socially together with me | 0 | 1 | 2 | 3 | 4 |
| 17. Attend to myself when someone else is needy | 0 | 1 | 2 | 3 | 4 |
| 18. Be assertive without worrying about hurting the other persons feelings | 0 | 1 | 2 | 3 | 4 |
| **The following are things that you do too much.** | | | | | |
| 19. I am too easily persuaded by other people | 0 | 1 | 2 | 3 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| 20. I open up to people too much | 0 | 1 | 2 | 3 | 4 |
| 21. I am too aggressive toward other people | 0 | 1 | 2 | 3 | 4 |
| 22. I try to please other people too much | 0 | 1 | 2 | 3 | 4 |
| 23. I want to be noticed too much | 0 | 1 | 2 | 3 | 4 |
| 24. I try to control other people too much | 0 | 1 | 2 | 3 | 4 |
| 25. I put other peoples needs before my own too much | 0 | 1 | 2 | 3 | 4 |
| 26. I am too suspicious of other people | 0 | 1 | 2 | 3 | 4 |
| 27. I tell personal things to other people too much | 0 | 1 | 2 | 3 | 4 |
| 28. I argue with other people too much | 0 | 1 | 2 | 3 | 4 |
| 29. I keep other people at a distance too much | 0 | 1 | 2 | 3 | 4 |
| 30. I let other people take advantage of me too much | 0 | 1 | 2 | 3 | 4 |
| 31. I am affected by another persons misery too much | 0 | 1 | 2 | 3 | 4 |
| 32. I want to get revenge against people too much | 0 | 1 | 2 | 3 | 4 |

**Appendix E: IIP-32**

Here is a list of problems that people report in relating to other people. Please read the list below, and for each item, consider whether that item has been a problem for you with respect to any significant person in your life. Then select the number that describes how distressing that problem has been, and circle a number.

| **It is hard for me to:** | **Not at all** | **A little bit** | **Moder-ately** | **Quite a bit** | **Extremely** |
|---|---|---|---|---|---|
| 1. Join in on groups | 0 | 1 | 2 | 3 | 4 |
| 2. Be assertive with another person | 0 | 1 | 2 | 3 | 4 |
| 3. Socialise with other people | 0 | 1 | 2 | 3 | 4 |
| 4. Show affection to people | 0 | 1 | 2 | 3 | 4 |
| 5. Be firm when I need to be | 0 | 1 | 2 | 3 | 4 |
| 6. Experience a feeling of love for another person | 0 | 1 | 2 | 3 | 4 |
| 7. Be supportive of another persons goals in life | 0 | 1 | 2 | 3 | 4 |
| 8. Make friends | 0 | 1 | 2 | 3 | 4 |
| 9. Disagree with other people | 0 | 1 | 2 | 3 | 4 |
| 10. Make a long term commitment to another person | 0 | 1 | 2 | 3 | 4 |
| 11. Feel comfortable around people | 0 | 1 | 2 | 3 | 4 |
| 12. Tell personal things to other people | 0 | 1 | 2 | 3 | 4 |
| 13. Really care about other people's problems | 0 | 1 | 2 | 3 | 4 |
| 14. Keep things private from other people | 0 | 1 | 2 | 3 | 4 |
| 15. Be aggressive towards people when the situation calls for it | 0 | 1 | 2 | 3 | 4 |
| 16. Take instructions from people who have authority over me | 0 | 1 | 2 | 3 | 4 |
| 17. Open up and tell my feelings to another person | 0 | 1 | 2 | 3 | 4 |
| 18.Attend to myself when someone else is needy | 0 | 1 | 2 | 3 | 4 |
| 19. Be involved with another person without feeling trapped | 0 | 1 | 2 | 3 | 4 |

**The following are things that you do too much.**

| | | | | | |
|---|---|---|---|---|---|
| 20. I fight with other people too much | 0 | 1 | 2 | 3 | 4 |
| 21. I get irritated or annoyed too easily | 0 | 1 | 2 | 3 | 4 |
| 22. I want people to admire me too much | 0 | 1 | 2 | 3 | 4 |
| 23. I am too dependent on other people | 0 | 1 | 2 | 3 | 4 |
| 24. I open up too much | 0 | 1 | 2 | 3 | 4 |
| 25. I put others needs before my own too much | 0 | 1 | 2 | 3 | 4 |
| 26. I tell personal things to other people too much | 0 | 1 | 2 | 3 | 4 |
| 27. I am affected by another persons misery too much | 0 | 1 | 2 | 3 | 4 |
| 28. I try to control other people too much | 0 | 1 | 2 | 3 | 4 |
| 29. I worry too much about people's reactions to me | 0 | 1 | 2 | 3 | 4 |
| 30.I am overly generous to other people | 0 | 1 | 2 | 3 | 4 |
| 31. I lose my temper too easily | 0 | 1 | 2 | 3 | 4 |
| 32. I am too envious and jealous of other people | 0 | 1 | 2 | 3 | 4 |

**Appendix F: AEE**

Please read each of the following statements carefully and indicate how much you agree or disagree with them, by ticking the appropriate box on the right. Please answer all questions.

| | **Strongly Disagree** | | **Neutral** | | **Strongly Agree** |
|---|---|---|---|---|---|
| 1. I think getting emotional is a sign of weakness. | 1 | 2 | 3 | 4 | 5 |
| 2. Turning to someone else for advice or help is an admission of weakness. | 1 | 2 | 3 | 4 | 5 |
| 3. It is shameful for a person to display his or her weaknesses. | 1 | 2 | 3 | 4 | 5 |
| 4. People will reject you if they know your weaknesses. | 1 | 2 | 3 | 4 | 5 |
| 5. If a person asks for help it is a sign of weakness. | 1 | 2 | 3 | 4 | 5 |
| 6. When I am upset I bottle up my feelings. | 1 | 2 | 3 | 4 | 5 |
| 7. When I am upset I usually try to hide how I feel. | 1 | 2 | 3 | 4 | 5 |
| 8. I seldom show how I feel about things. | 1 | 2 | 3 | 4 | 5 |
| 9. When I get upset I usually show how I feel. | 1 | 2 | 3 | 4 | 5 |
| 10. I do not feel comfortable showing my emotions. | 1 | 2 | 3 | 4 | 5 |
| 11. I think you should always keep your feelings under control. | 1 | 2 | 3 | 4 | 5 |
| 12. I think you ought not to burden other people with your problems. | 1 | 2 | 3 | 4 | 5 |
| 13. You should always keep your feelings to yourself. | 1 | 2 | 3 | 4 | 5 |
| 14. You should always hide your feelings. | 1 | 2 | 3 | 4 | 5 |
| 15. I should always have complete control over my feelings. | 1 | 2 | 3 | 4 | 5 |
| 16. I think other people do not understand your feelings. | 1 | 2 | 3 | 4 | 5 |
| 17. Other people will reject you if you upset them. | 1 | 2 | 3 | 4 | 5 |
| 18. My bad feelings will harm other people if I express them. | 1 | 2 | 3 | 4 | 5 |
| 19. If I express my feelings I am vulnerable to attack. | 1 | 2 | 3 | 4 | 5 |
| 20. If other people know what you are really like, they will think less of you. | 1 | 2 | 3 | 4 | 5 |

**Appendix G: BFNE**

Please read each of the following statements carefully and indicate how characteristic it is of you, by circling the appropriate number on the scale.

| | **Not at all like me** | **Slightly like me** | **Moderately like me** | **Very like me** | **Extremely like me** |
|---|---|---|---|---|---|
| 1. I worry about what other people will think of me even when I know it doesn't make any difference. | 1 | 2 | 3 | 4 | 5 |
| 2. It bothers me when people form an unfavourable impression of me. | 1 | 2 | 3 | 4 | 5 |
| 3. I am frequently afraid of other people noticing my shortcomings. | 1 | 2 | 3 | 4 | 5 |
| 4. I worry about what kind of impression I make on people. | 1 | 2 | 3 | 4 | 5 |
| 5. I am afraid that others will not approve of me. | 1 | 2 | 3 | 4 | 5 |
| 6. I am afraid that other people will find fault with me. | 1 | 2 | 3 | 4 | 5 |
| 7. I am concerned about other people's opinions of me. | 1 | 2 | 3 | 4 | 5 |
| 8. When I am talking to someone, I worry about what they may be thinking about me. | 1 | 2 | 3 | 4 | 5 |
| 9. I am usually worried about what kind of impression I make. | 1 | 2 | 3 | 4 | 5 |
| 10. If I know someone is judging me, it tends to bother me. | 1 | 2 | 3 | 4 | 5 |
| 11. Sometimes I think I am too concerned with what other people think of me. | 1 | 2 | 3 | 4 | 5 |
| 12. I often worry that I will say or do the wrong things. | 1 | 2 | 3 | 4 | 5 |

**Appendix H: INCOM**

Indicate how much you agree with *each* statement below, by using the following scale:

| | | **Strongly Disagree** | | | | **Strongly Agree** |
|---|---|---|---|---|---|---|
| 1 | I often compare how my loved ones (boy or girlfriend, family members, etc.) are doing with how others are doing | 1 | 2 | 3 | 4 | 5 |
| 2 | I always pay a lot of attention to how I do things compared to how others do things | 1 | 2 | 3 | 4 | 5 |
| 3 | If I want to find out how well I have done something, I compare what I have done with how others have done | 1 | 2 | 3 | 4 | 5 |
| 4 | I often compare how I am doing socially (e.g. , social skill, popularity) with other people | 1 | 2 | 3 | 4 | 5 |
| 5 | I am not the type of person who compares myself often with others | 1 | 2 | 3 | 4 | 5 |
| 6 | I often compare myself with others with respect to what I have accomplished in life | 1 | 2 | 3 | 4 | 5 |
| 7 | I often like to talk with others about mutual opinions and experiences | 1 | 2 | 3 | 4 | 5 |
| 8 | I often try to find out what others think who face similar problems as I face<br>. | 1 | 2 | 3 | 4 | 5 |
| 9 | I always like to know what others in a similar situation would do | 1 | 2 | 3 | 4 | 5 |
| 10 | If I want to learn more about something, I try to find out what others think about it | 1 | 2 | 3 | 4 | 5 |
| 11 | I never consider my situation in life relative to that of other people | 1 | 2 | 3 | 4 | 5 |

**Appendix I: MEPS**

Procedure for participants

"In this procedure we are interested in how you solve problems. You will be given 4 stories to complete. For each story you will be given the beginning of the story, where you are asked to imagine that you have a problem involving someone else, and then you are given the ending of the story, where everything ends well. We'd like you to provide the ideal strategy that will allow the beginning and end of the story to become connected. We would like you to describe this strategy in very specific terms so that it would be possible for anyone to follow your plan of action."

Here is a practice question:

You have fallen out with one of your best friends and are not speaking. At the end of the story everything ends well between you. What would you do in order to solve this situation?

Scenarios

1. You love your boyfriend/husband very much, but you have been arguing a lot lately. One day he walked out. You want things to be better between you. The story ends with you back together and everything fine between you. What would you do?

2. You have just moved in to a new area and don't know anyone there. You want to have friends in the neighbourhood. The story ends with you having many good friends and feeling at home in the neighbourhood. What would you do?

3. You notice that one of your friends seem to be avoiding you. You really like and enjoy spending time with this person, and want him or her to like you. The situation ends when he or she likes you again. What would you do?

4. You are having trouble getting along with your boss and it is making you unhappy as you feel uncomfortable at work. The story ends with everything fine between you and your boss. What would you do?

**Appendix J: Reflexive journal and audit trail**

The context of the study from a personal perspective

This study forms part of my PhD which has been funded by Leicestershire Partnership Trust. In this way, the research topic has been influenced by my funding and therefore, I have not necessarily chosen to study this topic because of my previous experience. Because of this, I don't feel like I am invested in finding a particular outcome in either the interviews with patients or focus groups with therapists. I hope I will keep an open mind when asking questions. However, as my PhD is funded by the service that provides IPT-BN, there is the hope that the therapy they are practising proves useful. Therefore, subconsciously, I could be susceptible to omitting data that does not support the use of IPT-BN. In the analysis, I will be careful to look for alternatives. For example, if I find evidence for a theme that suggests IPT-BN helps individuals decrease their BN symptoms, then I will look for evidence on the contrary. I hope that this will mean I look at the data fairly and with an open mind. I feel I have the interpersonal skills to listen and empathise with participants. I learnt good listening skills in my previous jobs in mental health and on my certificate in counselling skills. I believe I can use these skills to make sure I ask neutral questions and validate the way that the participants feel. However, although I will try my best not to influence the data, I am aware that as the interviewer, I have the ability to greatly influence the findings of the studies, both in terms of setting the questions, and looking for the themes in the data. I am not a neutral participant in the research project right from the outset. I have opinions about the ways in which IPT-BN should help patients due to the literature that I have read and the expectations I have regarding the therapy.

Reflexive journal

**23rd June 09**: Did the first interview today, and it went really well. The lady was really chatty and a pleasure to interview. There weren't any awkward silences at all and I got all the answers I needed. Actually really enjoyed it and looking forward to the next one as a break from quantitative work. Couldnt think of any problems with the interview questions.

**26th June 09**: I found the second interview difficult as the patient asks my opinion about why her eating disorder hasn't improved and what she should do. I feel I manage it ok by saying that I'm not qualified to give her advice and that she should talk to her consultant if this is the case. Did feel a little out of my depth though. I spoke to Jon afterwards and he said next time I should mention the three month review and advise her to bring it up then. I guess I was getting ahead of myself thinking that all the interviews were going to be as easy as the first.

**12th August 09:** It's been a bit quiet on the interview front. I've sent so many letters and people either haven't responded or have responded initially and then not replied after that. I think I'm going to have to recruit therapists to ask the patients more directly about the study rather than just casually mentioning it.

**8th September 09:** Another interview done today. The girl was young and quite quiet but happy to answer questions as long as I prompted her. So that was a bit more challenging, but I felt like I kept on track with the schedule.

**22nd September 09**: Interviewee was very quiet and depressed today. Didn't get very much more than yes and no answers, and it's hard to tell if she was just agreeing with me to get it over and done with. She wasn't very happy with therapy and I found this quite hard to deal with as she was quite depressed about it. It was hard to end the interview on a positive note as she didn't have any hope for the future.

**4th December 09**: Interview went really well today, the lady was even fun to talk to and happy to talk about everything. It was quite hard to remain professional though as she has studied psychology and was asking me things about my life.

**January:** I'm finding recruitment difficult as therapists are forgetting to ask their patients about the study, and writing to them myself isn't leading to many interviews. I'm definitely getting more patients from certain therapists that are more reliable, I hope this isn't a bad thing for the results. I guess I haven't mentioned anywhere that I would get a spread of different therapists' patients, but somehow it just feels wrong getting them all from two or three.

**16th March 10:** Really good interview today, the lady was very friendly and happy to share her experiences. It was the longest interview so far at an hour.

**18th June 10**: The interviewee arrived to the interview upset. I felt ok to deal with this, I asked her if she was ok to continue and reminded her that it was a voluntary interview. She continued and although she was emotional she seemed quite happy to talk about how she felt and had calmed down considerably by the end. She was upset because she weighed more than she had hoped for her last session which was prior to the interview. She left feeling positive about the future.

**Focus group 1**

It felt strange acting in the role of the interviewer because I already knew the therapists, although I have not worked closely with them. They are all a lot older than me and I felt young and inexperienced. I felt like I do not understand the language of therapy in order to ask the right questions. I also found it hard to manage the extent to which certain participants contributed. One participant wanted to speak all the time, and one did not wish to speak at all. It was challenging to try and bring the question back to the group as a whole when one person wanted to take over. I felt slightly out of my depth. It was interesting though.

**Focus group 2**

I felt this focus group flowed better than the last, however I think the data were influenced by the fact that one therapist was an IPT supervisor and the other two were novices. It almost became a training session, with me asking questions and the supervisor answering, whilst looking at the novices for approval. Although there was some interesting points which will come out in the analysis, I feel the focus groups were unbalanced in terms of experience.

Audit trail: from transcripts to themes and subthemes

**20th May:** Just sat down to start coding interviews. Don't really know where to start! I don't have nVIVO yet, the department hasn't got access to a copy which is ridiculous. So at the moment I'm just going to label my codes on the text using tracked changes, and make a master table of all the themes. This makes sense to me but I don't know if it will to others.

I'm starting by putting all of the codes into the master table with accompanying quotes. The table has headings for different interview questions, which are:

- Eating disorder behaviours at the beginning of therapy
- Eating disorder attitudes at the beginning of therapy
- Interpersonal functioning at the beginning of therapy
- What therapy has helped with (non-specific to IPT)
- What therapy has helped with (specific to IPT)
- Why therapy has helped
- What therapy has not helped with
- Why it didn't help
- Difficulties
- Suggestions for the future

So each time I code, I put the code in the section of the table it corresponds to, and note which interview it came from. Then when I see the code again in another transcript I'll add that to the quotes. By the end I should have a good spread of codes. Then once I can see them all in a sensible order I will start to bring together the themes from the individual codes.

**12th June**: I've coded three interviews so far, and seem to have an awful lot of codes already. But I suppose thats ok, better than not having very many. So far it looks like this:

Eating disorder behaviours at the beginning of therapy

All patients were diagnosed with BN therefore bingeing and vomiting ≥ twice a week for a minimum of 3 months. All three interviewees so far were bingeing/vomiting daily at the point of starting therapy.

Eating disorder attitudes at the beginning of therapy

- Not recognising ED as a problem
- Not thinking they deserve treatment (13)
- Habit: Not thinking about what goes on when bingeing. (7)
- Lack of knowledge: Not understanding that hunger will lead to bingeing. (7)
- Poor body image

Interpersonal functioning at the beginning of therapy

- What therapy has helped with (non-specific to IPT)
- What therapy has helped with (specific to IPT)
- Why therapy has helped
- What therapy has not helped with
- Why it didn't help
- Difficulties
- Suggestions for the future

**15th June**: Not sure whether to separate the results into two separate sections, one covering patients experiences before therapy, and one covering their experiences of therapy. There seems to be too many themes to do this all in one chapter.

**28th June**: Analysed interview two. Found that when she is talking about trusting the therapist this really struck me. She describes being very anti medication before coming to therapy and

then she says ‘If I come here and ask for your help I’ve got to do what you tell me to, it’s no good me saying I don’t think’. This makes me think I should re-analyse other transcripts to see if there is any other language about trusting the therapist and consider power inbalances, which I have not considered before.

**July**: Decided to separate the reasons why patients think therapy helped into two sections, one describing non-specific factors such as having someone to talk to, and one specific to IPT such as the focus on relationships. Decided to include a ‘food as friend’ theme, as patients talk about their changing relationship with food. Not sure if learning to accept making mistakes counts as self compassion? Being kind to oneself and accepting that you can’t get everything right first time. Decided to mention that most patients did not have suggestions, rather than just listing their suggestions.

**August**: Decided that accepting help and facing relationship problems themes are similar in that they are linked via a reduction in negative attitude towards emotional expression. Both involve expressing emotion, admitting weakness and having the courage to face relationship problems rather than avoiding. These might eventually come under one theme but not sure. Also thinking of creating a theme encompassing both the important of addressing relationships and food, as have found both are important.

Just realised I have been completely ignoring all instances of perfectionism in the interviews. How could I have done this, there is so much evidence of perfectionism in the eating disorders. Made a new theme and will have to go back through them and add examples.

**September**: Decided to combine the themes of acceptance, structure and having someone to talk to into one them. Has a rather long title though! I think dealing with relationships more appropriately could come under assertiveness, as it requires assertiveness skills to do this. Also in the last interview the patient mentioned being able to step back from unhealthy relationships, which I haven’t noticed before. So I think this theme will go at the end of the relationships section, i.e. you work on relationships, but sometimes they need dissolving. Decided that psychoeducation can come under challenging eating disordered thoughts and behaviours.
28th: Decided to rename the theme about using therapy as a reason to act differently as taking on the sick role.

**November**: Terry suggested that reduction in perfectionism doesn't fit under the theme like the others. Could perhaps reword it to something along the lines of having high standards? Jon suggested I rename 'a reduction in mood swings' as 'a reduction in irritability'.

**Feb**: Decided reduction in perfectionism should be 'more self compassion'

**March**: Feedback from Jon suggesting the why therapy helped should not be split into specific and non specific factors as nothing is really specific to one therapy anymore. He suggested the categories be split into 'content' 'form' and 'techniques' of IPT. I think this is a much better way of structuring it. Also suggested that specific relationship support should just be part of the focus on relationship theme. Got rid of role transitions and grief.