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A Multi-Site Comparison of Purging-Type Disorders

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A MULTI-SITE COMPARISON OF PURGING-TYPE DISORDERS

by

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ABSTRACT

The present study compared the behavioral and psychological presentation of bulimia nervosa (BN), anorexia nervosa-binge/purge subtype (AN-B/P), and purging disorder (PD) patients. Data were collected from large multi-site centers in the US. Subjects (N = 2966) included current anorexia- binge/purge subtype (n = 138), current bulimia nervosa (n = 854), and current purging disorder (n = 41) patients. General demographic information from the PD group is provided, along with differences in behavioral symptomatology among the three groups. Results indicated that some PD subjects may have a history of objective binge eating episodes and have comparable or less severe psychopathology and behavioral symptoms of eating disorders when compared to AN-B/P and BN patients. Future research should consider investigating diagnostic crossover among the three groups to better determine if the disorders represent a continuing cycle of changing psychopathology or discrete diagnostic entities.

CHAPTER I

INTRODUCTION

With the formation of the DSM-V taskforce and the forthcoming discussion of the current state of eating disorder diagnostic criteria, several articles have begun to examine the current diagnostic categories (Eddy, et al, 2008; Mitchell, Cook-Myers, & Wonderlich, 2005; Walsh, 2007; Wilfley, Bishop, Wilson, & Agras, 2007). There has been a particular interest in diagnosing atypical, subsyndromal, or behavioral variants of eating disorders, which are often classified as an Eating Disorder-Not Otherwise Specified (EDNOS). There are several subtypes of EDNOS, including cases that do not meet all necessary diagnostic criteria for anorexia nervosa (AN) and bulimia nervosa (BN) (Fairburn & Bohn, 2004). For example, a patient would not meet full diagnostic criteria for BN if binge episodes do not occur at least twice per week, even if all other criteria are met. Another possible subtype of EDNOS includes those individuals with mixed presentations, who seem to exhibit symptoms of both AN and BN (Fairburn & Bohn, 2004). The DSM-IV-*TR* outlines six examples of EDNOS. Generally, there has been little research on the clinical description, course, and response to treatment of those individuals with EDNOS descriptions, with the exception of Binge Eating Disorder (BED), which has recently received widespread attention (Fairburn & Bohn, 2004).

Limited research has examined individuals in this EDNOS categorization who do no meet full criteria for AN-B/P or BN, yet use purging behavior after experiencing a

subjective binge eating episode or ingesting only a modest amount of food (e.g., snack or standard caloric meal; Binford & le Grange, 2005). Recent interest has been in the disorder described as, "The regular use of inappropriate compensatory behaviors by an individual of normal body weight after eating small amounts of food (e.g., self-induced vomiting after the consumption of two cookies)" (American Psychiatric Association, 2000, p. 594). This cluster of symptomatology, labeled *Purging Disorder (PD)* by Keel (2005), has more recently been defined as a "specific EDNOS defined by recurrent purging in the absence of objectively large binge episodes among normal-weight individuals" (Keel, Haedt, & Edler, 2005, p. 191). Although these individuals do not experience binge eating episodes as defined by the DSM-IV-*TR*, they may feel a sense of loss of control over their consumption (Keel, Wolfe, Liddle, De Young, & Jimerson, 2007), and experience "subjective" binge eating episodes (SBEs; Binford & le Grange, 2005). Others have suggested "Compensatory Eating Disorder" may be a more precise label for this symptomatology since there are multiple avenues for purging and non-purging behaviors (e.g., laxative use, diuretic use, or vomiting) that are used following subjective binge eating or normal caloric consumption (Tobin, Griffing, Griffing, 2007; Mond, et al., 2006). Additionally, Wade (2007) has used the term "EDNOS-Purging" to refer to this pattern of behavior. Along with the various terms used to label PD, the definition of PD has been variable. In fact, Wade (2007) suggests, "A pressing issue for future research is the adoption of a consistent diagnostic definition of EDNOS-Purging Type so that comparisons between studies can be made more meaningfully" (p. 5).

Currently, ED research tends to focus on full-threshold disorders that have been outlined in the DSM-IV-TR, not the disorders which are sub-threshold and fall into the

EDNOS category (with the exception of Binge Eating Disorder [BED]; Walsh & Kahn, 1997). As Walsh and Kahn (1997) stated, "we study what we define." That is, researchers often include patients who meet the most stringent criteria for AN or BN, and not those individuals who meet a diagnosis of EDNOS (Neilsen & Palmer, 2003; Fairburn & Bohn, 2005).

The DSM-IV-TR states that the prevalence of AN is .5% in females, while the prevalence of BN is 1-3% in females (American Psychiatric Association, 2000). Research further suggests that the most common eating disorder diagnosis is EDNOS and that various subgroupings of the EDNOS category need to be delineated (le Grange, et al., 2006). For example, Machado and colleagues (2007) found a prevalence rate of .39% for AN, .30% for BN, and 2.37% for EDNOS in a Portuguese sample (N = 2,028). PD was estimated to be .94% in this sample (Machado, et al., 2007). Authors have suggested EDNOS diagnoses in outpatient samples encompassed 60% of cases, followed by 14.5% of AN cases and 25.5% BN cases (Fairburn & Bohn, 2004). Similarly, the DSM-IV-*TR* suggests subsyndromal AN, which is classified as EDNOS, is more prevalent than full threshold AN (American Psychiatric Association, 2000). Given the focus on DSM-defined disorders, it is quite possible that there are several different and understudied eating disorders that are behaviorally, cognitively, and emotionally similar to AN and BN, but are overlooked since they fall into the larger EDNOS category.

Researchers' focus on AN and BN may be due to the fact that several issues still exist in the diagnosis of ED, such as refining and explicitly defining the duration and frequency of symptoms (Walsh & Kahn, 1997). Latent class analysis has suggested that AN and BN are not necessarily different entities and that these two eating disorders may

exist on a continuum with EDNOS (Keel et al., 2004). This finding may be supported by the observation that patients with AN often transition to BN (Nielsen & Palmer, 2003). These transitions among ED diagnoses may suggest that it is possible for crossover to occur among AN or BN, to PD or other EDNOS groups. Some suggest that PD may be better conceptualized as a "pre-BN or partial BN conceptualization", especially for individuals who do not meet criteria for full AN or BN (Binford and le Grange, 2005, p. 157).

The limited research on EDNOS patients impacts clinical practice, as there is limited research on the treatment of individuals with EDNOS classifications (Fairburn & Bohn, 2005). Additionally, patients relegation to a "not otherwise specified" grouping does not limit the severity and lethality of their behaviors. The medical repercussions of PD (e.g., electrolyte imbalances, dental erosion, and edema to name a few) speak to the importance of further subtyping EDNOS and perhaps specifying a new diagnostic classification for PD (le Grange, et al. 2006).

Distinction between Subjective and Objective Binge Eating

The behavioral difference between PD and BN appears to be the size of the binge eating episode, in that PD patients do not have objectively large binge eating episodes. However, in the eating disorder literature, the quantification as to what constitutes an "objective binge eating episode" is variable. That is, one pressing issue in the classification of eating disorders is the need for more stringent quantification of the caloric intake needed to meet the criteria for an objective or subjective binge eating episode. Generally, objective binge eating (OBE) episodes are typified by two criteria: loss of control and consumption of a large amount of food (i.e., more food than typically

consumed by individuals in a similar situation and time period) (DSM-IV-TR, American Psychiatric Association, 2000). Subjective binge eating (SBE) episodes constitute occurrences in which an individual experiences loss of control; however, a comparatively large amount of food is not consumed (Neigo, et al., 1997; Pratt, Niego, & Agras, 1998); the individual may estimate their consumption episode to be excessive (e.g., two cookies), though it would not be considered comparatively large by an objective observer. These definitions can clearly be adaptable since "large amount" is not operationalized. Further confounding the study of eating patterns is the variability in ED patient's ability to calculate the number of calories they consume during "loss of control" episodes (Walsh & Kahn, 1997). Taken together, PD may be a variant of BN, or perhaps a precursor or resolution to BN or AN-B/P (with addition of normalized weight); though no research has examined these possible temporal transitions.

It is possible that SBEs are the precursor to the more severe OBEs; however, in one sample, individuals with SBE do not appear to have a history of previous OBEs (Keel, Mayer & Harnden-Fischer, 2001). Women with OBEs have also been shown to have twice as many binge/purge episodes compared to those with SBEs (Keel, Mayer, & Harnden-Fischer, 2001). The increased frequency of OBEs may suggest that individuals with OBEs have more severe psychopathology. Finding have been mixed in that psychological treatment was more often sought by individuals with OBEs, and these subjects were significantly more impulsive compared to their SBE counterparts (Keel, Mayer, & Harnden-Fischer, 2001). Relatedly, using multiple purging methods, as opposed to only one, is indicative of more severe psychopathology (Haedt, Edler, Heatherton, & Keel, 2006). Some research suggests that the size of a binge eating

episode may not differentiate severity or type of eating disorder. Pratt, Niego, and Agras (1998) found that BN subjects with OBEs and SBEs did not differ on measures of psychopathology, past treatment of psychological disorders, body mass index, or duration of binge eating or purging. Similarly, Keel and colleagues (2001) found that rates of depression, anxiety, alcoholism, and drug abuse did not differ among individuals with OBEs and SBEs. Niego and colleagues (1997), after coding subjects' identified binge episodes as OBEs and SBEs, found the type of episode was not related to higher scores on measures of psychopathology (Neigo, et al., 1997). In the same sample, using a 12 week cognitive behavioral therapy (CBT) regimen, over half of OBEs resolved within four weeks, compared to only one-quarter of SBEs (Neigo, et al., 1997).

Purging and Non-purging Type Disorders

Purging and non-purging type disorders may be quite different in terms of psychopathology. O'Kearney and colleagues (1998) examined psychopathology among 77 purging and 48 non-purging eating disorders patients. Forty percent of this sample was diagnosed with EDNOS, while 50% were diagnosed with BN and 10% were diagnosed with AN. Subjects were grouped into purging (i.e., abuse of laxative, diuretics or vomiting ≥ 2 times per week based on self-reported behavior that occurred during the 4 weeks prior to interview) or non-purging. The purging group had significantly higher scores on the Beck Depression Inventory (BDI; Beck & Steer, 1984), while body mass index (BMI) and Symptom Checklist-90 (SCL-90; Derogatis, 1979) Anxiety and Global Severity Index scores did not differ among the two groups (O'Kearney, et al., 1998). When controlling for BDI scores, the purging group had significantly higher scores on the Overeating, Loss of Control, and Bulimia scales of the Eating Disorder Inventory-2

(EDI-2; Garner, 1991). No differences emerged between groups on the scales of Interoceptive Awareness, Body Dissatisfaction, Drive for Thinness, or Distress. Generally, the purging group had higher scores on every subscale of the EDI except the Perfectionism scale, which may indicate more server disturbances in the purging subjects (O'Kearney, et al., 1998).

In examining vomiting and non-vomiting purging groups, Reba and colleagues (2005) found no significant differences between groups. However, the vomiting group had significantly higher lifetime BMI and was younger at age of first menses. The non-vomiting group had significantly higher scores on the motivation to change subscale of the Yale-Brown-Cornell-Eating Disorders Scale (YBC-EDS) (Sunday, Halmi, &Einhorm 1995; Mazure, Halmi, Sunday, Romano, Einhorn, 1994) and the Yale Brown- Obsessive Compulsive Scale-obsessions subscale (Goodman, Price, Rasmussen, Mazure, Fleischmann, et al. 1989; Goodman, Price, Rasmussen, Mazure, Delgado, Henninger, et al., 1989).

Tobin and colleagues (1992) examined differences in types of purging behavior and frequency of purging methods. The authors found that vomiting was the most common purging method and was the method most likely to be present in individuals who used two to four compensatory behaviors, such as exercise, fasting, laxatives, and diuretic use. Many individuals in this 245-subject sample used two purging methods (44%) which included predominately vomiting and exercise (Tobin, et al., 1992). Additionally, diet pills have been shown to be more frequently used by both single and multiple-method purgers, while vomiting, laxative abuse and diuretic abuse are used less frequently (Haedt, Edler, Heatherton, & Keel, 2006).Given this information, it is

important to assess the purging use and frequency in patients with PD. Tobin and colleagues (1992) also found that individuals with multiple compensatory behaviors had the more severe psychopathology as indicated by the SCL-90-R, EDI-2, and BDI. A past history of self-injury is also more common in those individuals with three compensatory behaviors, although the types of self-injury were not specified.

Current Research on Purging Disorder

There is limited research on purging without OBEs in individuals of normal weight. Keel (2007) suggested fourteen articles have directly examined PD as a diagnostic construct, the earliest of which was almost two decades ago (i.e., Mitchell, Pyle, Hatsukami, & Eckert, 1986). Most research studying PD has examined the disorder in relation to BN. One study to date has compared PD patients to patients with AN and made comparisons among AN, BN, PD, and BED, however group sample sizes were quite low with merely six subjects in the PD and BN groups (Fink, Smith, Gordon, Holm-Denoma, & Joiner, 2008). Findings largely suggested drive for thinness as measure by the EDI-2 was similar in AN, BED, and PD subjects and BN subjects show more impulsivity than PD, AN, and BED subjects (Fink, et al., 2008).

As noted previously, there is little consistency in the definition of PD (Wade, 2007). Historically, there have been several different ways of conceptualizing PD. For instance, Wade (2007) defined EDNOS-purging as "threshold levels (i.e., at least twice a week of a 3-month period) of purging (i.e., self-induced vomiting, diuretic or laxative abuse) for the purpose of weight or shape control in the absence of objective binge episodes" (p. 1).

Current research examining BN and PD (or EDNOS-P) has been somewhat inconsistent. Binford and le Grange (2005) compared BN subjects and EDNOS-Purging subjects (i.e., no OBEs, and purging behavior including vomiting or laxative abusewhich occurred at minimum one time per week for 6 months). Binford suggested that over half of the subjects in the BN group reported SBEs and OBEs (Binford & le Grange, 2005). Of the purging subjects, half reported they had neither SBEs nor OBEs, while the other half reported experiencing SBEs (Binford & le Grange, 2005). Mean scores on Eating Disorders Examination (14th ed.; Fairburn & Cooper, 1993) Weight, Shape, and Eating Concerns scales, as well as Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1979) scores were all significantly higher for BN subjects compared to EDNOS-P subjects (Binford & le Grange, 2005). These findings suggest more severe pathology in BN patients when compared to EDNOS-P patients. However, no differences emerged among BDI scores and the mean weight of the two groups (Binford & le Grange, 2005). Furthermore, the similar mean weight among the two groups may suggest that EDNOS-P does not appear to be a variant of AN-B/P, since AN-B/P subjects require a BMI less than 17.5 (Binford & le Grange, 2005).

Another issue in eating disorder research is transitions among the continuum of eating disorders. Most research on EDNOS-purging or PD has not controlled for previous diagnoses or "diagnostic cross-over" (Wade, 2007, p. 1; Keel, et al., 2005). Current research suggests that many BN subjects have a history of AN, as nearly 30% of BN and 12-30% of EDNOS-BN or PD subjects had a previous diagnosis of AN (le Grange, et al., 2006; Keel, et al., 2005). Research is needed to determine whether PD occurs in those with a past history of AN or BN or if PD occurs as a precursor to AN or BN.

Only one study to date has controlled for transitions across diagnoses in PD patients. Wade (2007) compared subjects with no history of an ED, subjects with "lifetime BN-P" diagnoses, and "lifetime EDNOS-P" diagnoses to control for multiple ED diagnoses or diagnostic cross-over (p. 2). Subjects were required to carried only one eating disorder diagnosis through their lifetimes. Wade (2007) suggested that EDNOS-P patients appeared to have more psychopathology when compared to controls, but less than BN subjects. The EDNOS-P subjects had significantly lower scores on eating concern and dietary restraint subscales of the EDE compared to the BN-P group. EDNOS-P and BN-P individuals had a significantly higher likelihood to have a major depressive episode diagnosed than controls, and the BN-P group had significantly higher rates of major depressive episodes than EDNOS-P. The BN-P group had significantly higher rates of suicidality, measured by questions on the semi-structured assessment for the genetics of alcohol (SSAGA) (Bucholz, Cadoret, Cloninger, et al.,1994) than both the EDNOS-P and control groups; however suicidality in the EDNOS-P group was significantly higher than in the control group. The authors did not note whether suicidality was present prior to the ED. The BN-P group was less likely to abuse laxatives but more likely to use vomiting than the EDNOS-P groups. Unlike other findings, the EDNOS-P group did not differ from controls on eating concerns, current or highest and lowest lifetime BMI, and impulsivity.

It is also possible that PD may currently be grouped as subsyndromal or atypical AN or BN. Garner, Garner, and Rosen (1993) classified AN subjects into three groups: restricting (AN-R), purging (AN-R/P), and binge eating and purging (AN-B/P) to address the possible differences between purging and non-purging groups. Compared to the AN-

R group, the AN- B/P had more comorbid psychopathology. The AN-B/P subjects were significantly more likely to have used illicit drugs and report past stealing behaviors compared to AN-R and AN-RP (Garner, Garner, & Rosen, 1993). Suicide attempts, depression scores, age, length of illness, current weight, maximum and minimum adult weight, and body dissatisfaction were significantly lower in AN-R, compared to both AN-R/P and AN-B/P. Drive for thinness was significantly higher in AN-B/P subjects compared to AN-R subjects. The AN-R/P subjects had the highest scores on the Hopkins Symptom Checklist (e.g., anxiety, somatization, obsessive/compulsive, interpersonal sensitivity, depression; HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). These finding suggest that purging behavior or binge/purge behavior are linked to more frequent or severe psychopathology. In comparing the AN-R/P and AN-B/P groups in purging behaviors, vomiting was less frequent in the AN-R/P subjects; however, a greater percentage of AN-R/P subjects abused laxatives or abused laxatives exclusively (i.e., in the absence of vomiting), than the AN-B/P subjects. AN-B/P subjects were more likely to use both vomiting and laxatives compared to AN-RP subjects.

Le Grange and colleagues (2006) examined BN and EDNOS-BN subjects. The EDNOS-BN group was composed of subjects who did not meet binge/purge frequency or report OBEs to satisfy criteria for BN. Ninety-two percent of the EDNOS-BN group were subjects who did not experience OBEs. The BN subjects had significantly more vomiting and laxative abuse episodes (le Grange, et al., 2006). The groups did not differ in levels of anxiety, depression, perfectionism, impulsivity, alcohol abuse, or obsessive-compulsiveness; however, most BN mean scores were greater than EDNOS-BN scores (le Grange, et al., 2006). Of the EDNOS-BN group, those with no OBE had significantly

higher scores on Dietary Restraint on the EDE-Q (le Grange, et al., 2006). The BN group had significantly higher scores on Eating Concerns subscale of EDEQ-4 than the EDNOS-BN group (le Grange, et al., 2006). Keel and colleagues (2005) also found BN subjects had significantly higher Eating Concerns scores than a PD group. Le Grange and colleagues (2006) concluded that BN and EDNOS-BN were similar and suggested that there is a need to refine the lines between BN and EDNOS possibly by determining the necessity for loss of control in SBEs and OBEs (le Grange, et al., 2006; Mond et al., 2006).

Keel and colleagues (2005) also found no significant differences in BMI across BN, PD, and control groups. No differences emerged between the BN and PD groups on the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987), and the Eating Disorders Examination subscales (Fairburn & Cooper, 1993). In terms of clinical disorders, the BN group reported increased depression and anxiety symptoms compared to PD subjects. No differences emerged between these groups when comparing current or lifetime prevalence of substance abuse, anxiety disorders, or impulsivity as measure by the Barratt Impulsiveness Scale. There were no differences in Axis II psychopathology among the BN and PD groups. Notably, the PD group did differ from the control group on all measures, revealing the clinical significance of PD (Keel, et al., 2005). In terms of diagnostic changes, BN and PD groups tended to remain in their initial diagnostic classification at about eight ($M = 7.7$, $SD = 2.7$) month follow-up, as opposed to being better classified into another ED diagnostic group. This suggested little diagnostic crossover among the group. Similarly, neither group had significantly different rates of symptom remission.

Others have conceptualized a purging-type disorder (i.e. Compensatory Eating Disorder; CED) as a subtype of BN, with BN as more severe pathology/symptoms than PD (Tobin, Griffing, & Griffing, 1997). Non-purging BN, purging BN, and CED subjects were similar on the anxiety, paranoia, and psychoticism subscales of the Symptom Checklist-90 (SCL-90) (Tobin, Griffing, & Griffing, 1997). CED patients had a lowest level of body dissatisfaction among non-purging BN and purging BN (Tobin, Griffing, & Griffing, 1997). Except for Maturity Fears and Interpersonal Distrust, BN-P and BN had higher scores on each EDI subscale (Tobin, Griffing, & Griffing, 1997). However, nearly half of the CED group had a past hospitalization, which was twice the rate of hospitalization in the other groups (Tobin, Griffing, & Griffing, 1997). In predicting depression, fasting (R^2= .24) and the frequency of compensation behavior (R^2= .26) were the only predictive variables (not frequency of binge eating, laxative abuse, vomiting, exercising) (Tobin, Griffing, & Griffing, 1997). Tobin, Griffing, and Griffing (1997) conclude there are no differences in pathology between Non purging-BN and BN-P.

Only one study has examined physiological factors related to purging disorder. Keel, et al. (2007) noted that cholecystokinin (CCK), a peptide hormone related to food digestion and hunger suppression, may impact feelings of satiety in individuals with PD. Specifically, those individuals with PD had a greater amount of CCK released and a lower rating of hunger after a test meal when compared to individuals with BN. Further, PD subjects also had greater ratings of fullness and "stomach ache", when compared to BN and control subjects. These findings suggest further that PD and BN are divergent disorders.

Research Questions and Future Directions

One issue that arises in the study of PD is the necessity for standardized diagnostic criteria. Given the inchoate nature of the research surrounding this disorder, it is essential to create a standardized diagnosis scheme to better refine research outcomes. A stringent definition of both purging frequency and quantity of food consumed prior to purging seems to be essential to diagnostic formulations and definitions in order to further scientifically examine and accurately diagnose patients. It may also be essential to examine the use of other compensatory behaviors such as diuretic abuse, enema use, and laxative use, and why individuals with PD choose one method over another or if compensatory methods are used in combined form to gain a better understanding of the behavioral manifestation of PD. Additionally, this research is intended to provide supplementary information on the validity of PD as a distinct disorder by examining specific behavioral traits that clearly separate PD from BN and AN-B/P.

Given the limited research on PD, several basic questions remain about the social and family situations of these patients. Little research has compared PD patients to AN-B/P subjects. Furthermore, given the differences in PD and BN, treatment implications may be divergent for those with PD compared to other eating pathologies. Moreover, it is still unclear as to what distinguishing factors set PD apart from BN or other eating disorders and if PD is a milder form of the current eating disorders. There is currently no literature addressing the treatment needs of individuals with PD.

The exclusive challenge of the proposed research project is the under-explored and novel nature of PD. The current study serves to address the idea that there is a new and diagnostically distinct eating disorder. Given the limited literature, the current study

will provide a compilation of statistics and analysis which can serve as a possible reference and catalyst for future research and diagnostic classification.

CHAPTER II

HYPOTHESES

The following hypotheses are proposed:

1. PD is a unique disorder and therefore will show significant differences from AN-B/P and BN.
   - 1.1. PD subjects will not have a history of OBES.
   - 1.2. PD subjects will use fewer methods of purging behaviors compared to BN and AN-B/P subjects.
   - 1.3. BMI will not differ between the BN and PD groups.
   - 1.4. The groups will differ on desired weight (AN > BN, PD) and highest adult weight (AN < BN, PD).
   - 1.5. The three groups will differ in their frequency of purging behavior.
   - 1.6. The groups will not differ on levels of depression.
   - 1.7. The groups will differ on eating pathology as measured by the EDE-Q4.
     - 1.7.1. Restraint: AN >BN >PD
     - 1.7.2. Eating Concern: AN >BN >PD
     - 1.7.3. Shape Concern: AN >BN, PD
     - 1.7.4. Weight Concern: AN >BN, PD

CHAPTER III

METHOD

The subjects in this analysis (N=1033) were taken from a larger sample of 2966 individuals with symptoms of eating disorders (Male n = 194; Female n = 2759, missing = 13) from multiple sites, including Minnesota, North Dakota, Florida, Ohio, and Illinois seen for an eating disorder evaluation. All the patient data entered into the database were clinical patients seen at one of these five sites. Data were collected from 1979-2004 and compiled into several databases, which were then merged and aggregated to create one database, which was used in the present analysis. All subjects completed an informed consent document (see Appendix 1).

All patients completed the Eating Disorder Questionnaire (EDQ) (Mitchell, Hatsukami, Eckert, & Pyle, 1985), a comprehensive inventory of demographic, medical, psychiatric, family, and eating and weight management histories (see Appendix 2). The EDQ has been used in other studies (Mitchell, et al., 2007), although psychometric properties of it are only being investigated currently. Based on responses, an EDQ-specific algorithm was used to established patient's diagnostic classifications (Mitchell, Crosby, Wonderlich, Hill, le Grange, Powers, et al., 2007). Classification criteria are found in Table 1. The classification groups (N=1033) included current AN- Binge/Purge (n = 138), Current BN (n = 854), and Purging Disorder patients (n = 41).

A subset of 20% of patients (206 of 1033) completed the Eating Disorder Examination-Q4 (EDE-Q4) (Fairburn & Beglin, 1994), a widely used instrument in the study of eating disorders (see Carter, Steward, & Fairburn, 2001 for psychometrics review). The EDE-Q4 is a self-report instrument which has been suggested to be comparable to the EDE, a clinician interview assessment. The EDE-Q4 measures four domains of eating disorders pathology over the previous 28 days including, Restraint, Eating Concerns, and Shape Concerns, Weight Concerns (see Appendix 3).

A subset of 18% of patients (185 of 1033) also completed the Inventory of Depressive Symptoms-Self Report (IDS-SR) (Rush et al., 1986, 1996) which has adequate reliability and consistency (Rush, Carmondy, & Reimitz, 2000). The instrument includes 30 questions which measure depressive symptomatology over the previous seven day (see Appendix 4).

Table 1. Diagnostic Classification Criteria

Diagnosis	Classification Criterion
AN-Binge/Purge	- BMI ≤ 17.50 - Objective binge eating ≥ 2 episodes/week *and/or* - Purge ≥ 2/week - "Moderate," "very much," or "extreme" fear of gaining weight
BN	- BMI > 17.50 - Objective binge eating ≥ 2 episodes/week *and* - Purge ≥ 2/week - "Moderate," "very much," or "extreme" fear of gaining weight
PD	- BMI > 17.50 - No objective binge eating episodes *and* - Purge ≥ 2/week - "Moderate," "very much," or "extreme" fear of gaining weight

Note: AN= Anorexia Nervosa, BN= Bulimia Nervosa, PD= Purging Disorder. All binge and purge behavior occurred within 1 month prior to completion of the Eating Disorder Questionnaire (EDQ). "Purge" in all classification criteria included vomiting, laxative, enema, ipecac syrup. At least one method of purging was endorsed.

ANOVA analyses were used to compare AN-B/P, PD, and BN groups. Using GPOWER 3.0.010 (Faul, Erdfelder, Lang & Buchner, 2007) a medium effect size was established using N = 159 subjects (α error prob. = 0.05, Power (1- β err prob.) = 0.80, k = 3). Heterogeneity of variance was discovered with several comparisons therefore log10 transformations were used to attempt to address heterogeneity. However, this transformation was not successful in addressing heterogeneity of variance and therefore alternative Brown-Forsythe and Welch F tests, and the Kruskal Wallis Test (see Myers & Well, 2003) were used to provide corroborating evidence of statistical significance. Additionally, because of the multiple comparisons used in the analysis, Bonferroni-adjusted p-values were used to assess significance. With eight comparisons and a

significance level of $p < .05$, an adjusted p-value of .01 was utilized for omnibus and post-hoc comparisons.

CHAPTER IV

RESULTS

Data included 41 PD subject with a mean age of 30.08 years old (SD= 12.29, Range = 17-58 years). Twenty-nine of the PD subjects were normal weight (i.e., BMI 17.5 ≤ 25), four subjects who are overweight (BMI ≥ 25.1), and one subject was a bariatric surgery candidate. Additional characteristics about the PD sample are included in Table 2.

Table 2: Demographic Information of Purging Disorder Subjects, N=41

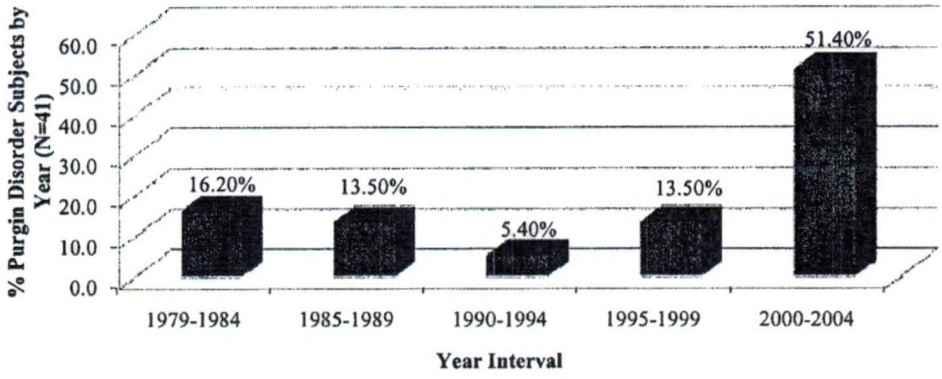
	n	%	Range
BMI:			
Normal (BMI 17.5 ≤ 25)	29	70.73%	19.10-24.93
Overweight (BMI ≥ 25.1)	4	9.76%	25.81-42.93
Missing	7	17.07%	----------
Gastric Bypass Candidate	1	2.44%	40.72
Gender:			
Male	2	4.88%	
Female	39	95.12%	
Ethnicity:			
White	38	92.7%	
African American	1	2.4%	
Asian	1	2.4%	
Missing/unidentified	1	2.4%	
Marital Status			
Never Married	23	56.1%	
First Marriage	8	19.5%	
Divorced & Remarried	1	2.4%	
Living with Partner	3	7.3%	
Not Living with Partner	3	7.3%	
Divorced and Not Remarried	1	2.4%	
Missing	2	4.9%	

Table 2 cont.: Demographic Information of Purging Disorder Subjects, N=41

	n	%	Range
Objective Binge Eating (OBE):			
Denied OBE history	30	73.17%	
Endorsed OBE history	10	24.39%	
Missing	1	2.4%	

Figure 1 shows the distribution of PD subjects across the dataset. Specific information regarding prevalence estimate of PD can not necessarily be established from these data as varying recruitment methods were used that may have led to variation in the representation of specific diagnostic groups. Nevertheless, PD is represented in each year of data collection.

Figure 1: Distribution of Purging Disorder Subjects



The frequency of eating disorder behaviors, exercise, and compensatory behaviors are presented in Tables 3 and 4. Over 50% of PD patients report skipping meals, eating small meals, eating low calorie meal, or exercising most days of the week. The predominance of PD subjects use vomiting and laxative abuse as a method of controlling their weight as opposed to using enemas or syrup of ipecac. See Figure 2 and 3. Of the purging methods described in Table 4 (vomit, laxative, enema, or ipecac), groups differed

on number of purging methods used when using an ANOVA F-test [F (2, 1025) = 4.56, p = .01]; however, the Welch test failed to find significance p <.016. See Figure 4.

Table 3: Frequency of Eating Disorder Behavior in PD Subjects

	Frequency (%)			
	Skip Meal	Small Meal	Low Calorie Meal	Exercise
Never	7 (17.9%)	3 (8.8%)	5 (14.3%)	8 (19.5%)
Once Monthly	0 (0%)	0 (0%)	0 (0%)	1 (2.4%)
Several Times Monthly	3 (7.7%)	2 (5.9%)	0 (0%)	5 (12.2%)
Once weekly	0 (0%)	1 (2.9%)	0 (0%)	2 (4.9%)
Twice weekly	1 (2.6%)	2 (5.9%)	1 (2.9%)	1 (2.4%)
3-6 Times/week	6 (15.4%)	9 (26.5%)	6 (17.1%)	10 (24.4%)
Once Daily	8 (20.5%)	5 (14.7%)	4 (11.4%)	9 (22.0%)
More than once daily	14 (35.9%)	12 (35.3%)	19 (54.3%)	5 (12.2%)
TOTAL N	39	34	35	41

Table 4: Frequency of Compensatory Behaviors in PD Subjects

	Frequency (%)			
	Vomit	Laxative	Enema	Ipecac
Never	9 (22%)	19 (46.3%)	39(95.1%)	24 (100%)
Once/month	0 (0%)	3 (7.3%)	0 (0%)	0 (0%)
Several times/month	0 (0%)	1 (2.4%)	0 (0%)	0 (0%)
Once/week	1 (2.4%)	0 (0%)	0 (0%)	0 (0%)
Twice/week	2 (4.9%)	3 (7.3%)	0 (0%)	0 (0%)
3-6times/week	16 (39%)	4 (9.8%)	2 (4.9%)	0 (0%)
Once/day	2 (4.9%)	3 (7.3%)	0 (0%)	0 (0%)
More than once/day	11(26.8)	8 (19.5%)	0 (0%)	0 (0%)
TOTAL N	41	41	41	24

Figure 2: Frequency of Vomiting in PD Subjects

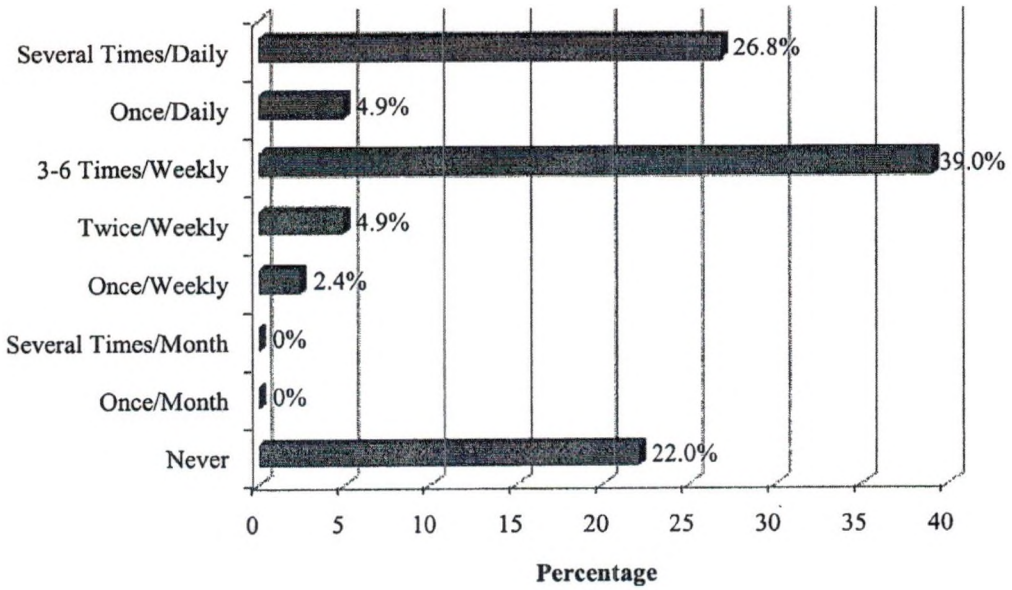


Figure 3: Frequency of Laxative Use in PD Patients

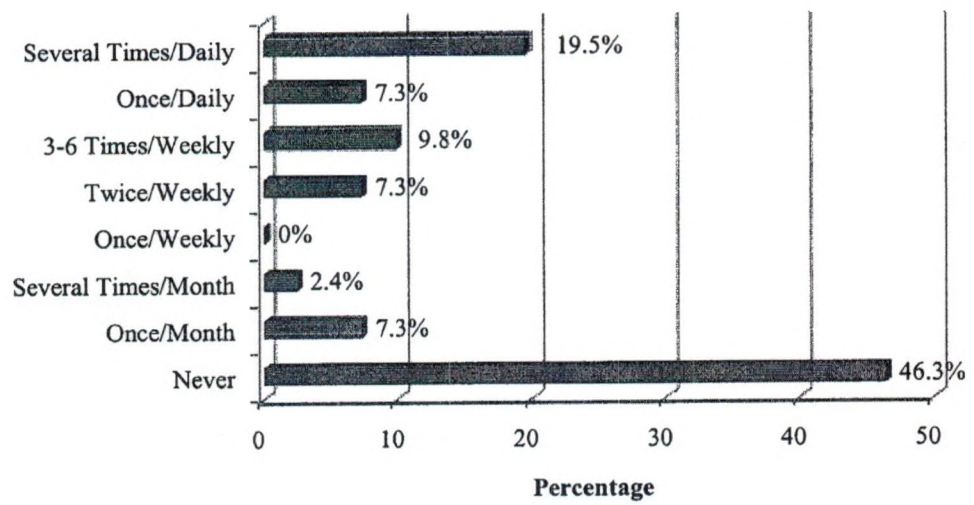
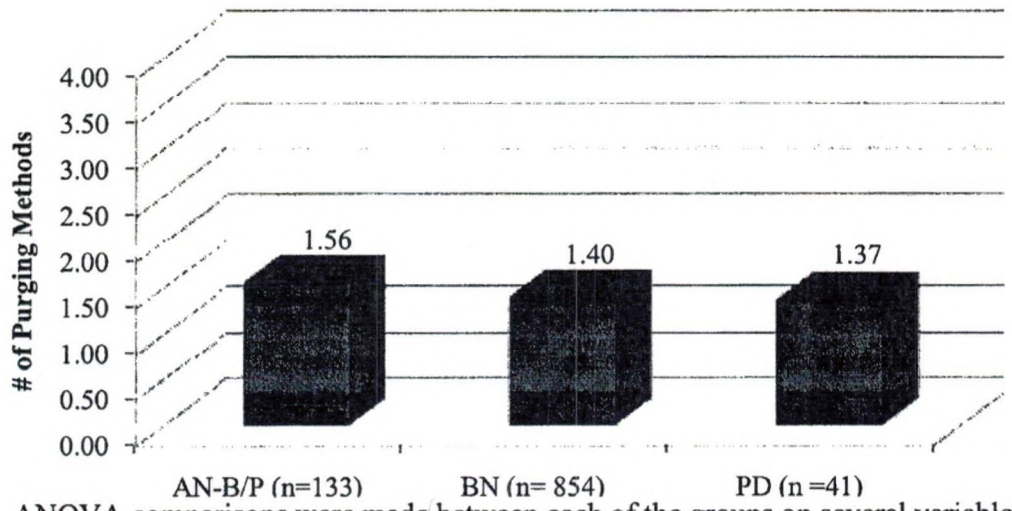


Figure 4. Number of Purging Methods by Diagnostic Group



ANOVA comparisons were made between each of the groups on several variables (see Table 5). Vomit and laxative use were the most commonly used methods of purging for the PD subjects. Therefore, these two behaviors were compared among the groups. BN subjects endorsed the most frequent vomiting over the past month when compared to the AN-B/P and PD groups which did not differ [$F (2, 1025) = 18.97$, $p < .000$]. Similar results were found in laxative use wherein BN subjects differed from AN-B/P and PD subjects [$F (2, 997) = 15.42$, $p < .000$]. AN-B/P and PD did not differ.

As anticipated, BMI differed among the groups, as this was a grouping variable in the diagnostic classification criteria. BN and PD differed from AN-B/P subjects [$F (2, 1023) = 105.24$, $p < .000$] but BN and PD ($p = .493$) subjects did not differ. That highest adult weight and the weight subjects would like to weight of showed similar results. BN and PD subjects had significantly higher adult weights than AN-B/P subjects weight [$F (2, 974) = 105.24$, $p < .000$] but PD and BN did not differ from one another ($p = .180$). The groups differed on desired weight [$F (2, 960) = 70.97$, $p < .000$], with AN-B/P

wishing to weigh significantly less than PD and BN ($p < .000$). BN and PD groups did not differ ($p = .760$). Results are presented in Table 5.

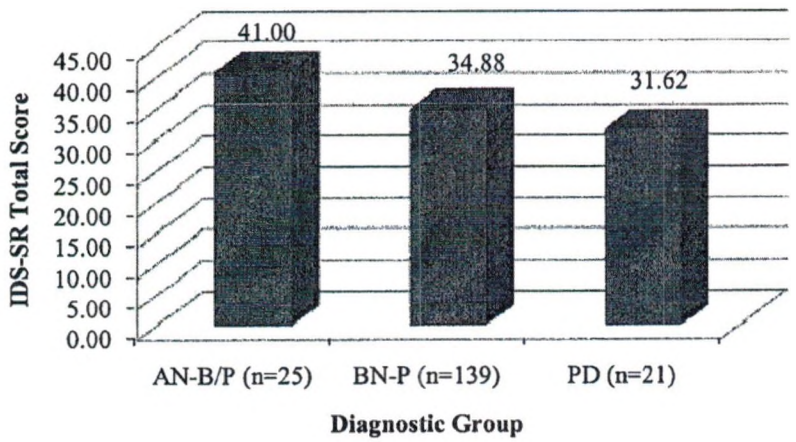
Table 5: EDQ Comparison for Patient Groups

	AN-B/P	BN	PD	*F*	p-value
Vomit Frequency Last Month[†]	5.78[a]	6.69[b]	5.39[a]	18.965	0.001
Laxative Frequency Last Month[†]	3.77[a]	2.63[b]	3.71[a]	15.419	0.001
Body Mass Index	16.34[a]	22.53[b]	23.09[b]	105.24	0.001
Highest Adult Weight	130.10[a]	157.69[b]	166.73[b]	26.51	0.001
Like to Weigh	100.50[a]	118.17[b]	117.41[b]	70.97	0.001

Notes: [†]1=Never, 2= Once monthly, 3= several times monthly, 4= once weekly, 5 =twice weekly, 6 = 3-6 times daily, 7= once daily, 8= more than once daily
[a,b] Mean difference is significant at the .01 level. LSD Post-Hoc Analysis

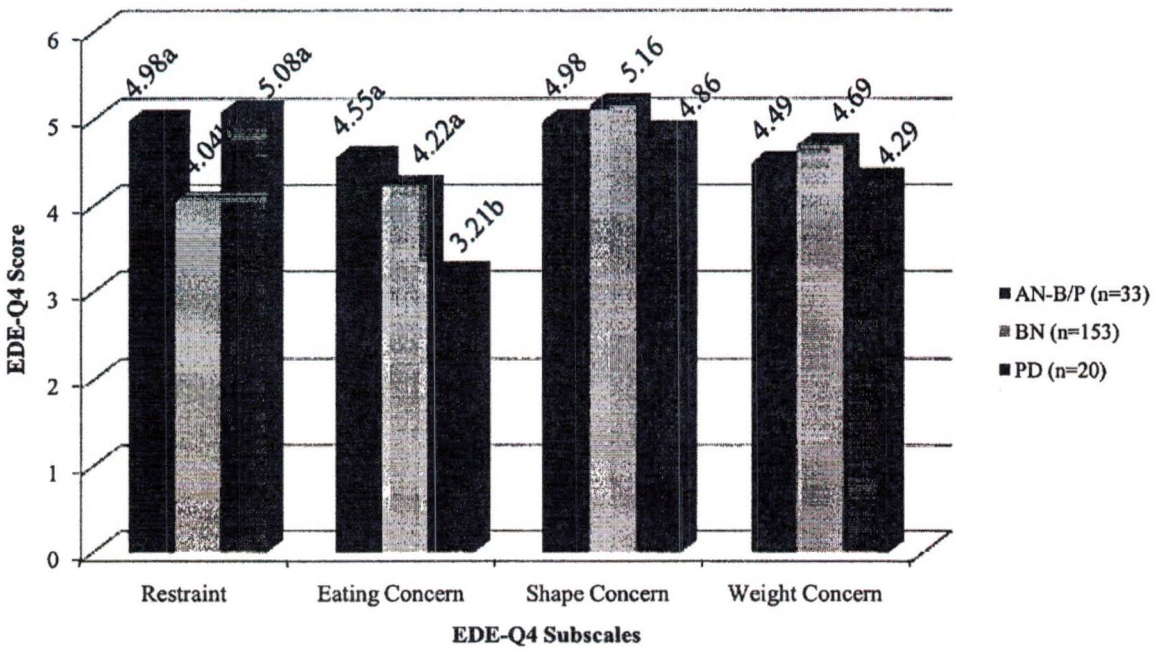
A subsample of participants (Ohio and North Dakota participants) completed the Inventory of Depressive Symptoms-Self Report (IDS-SR) (Rush et al., 1986, 1996). In comparing AN-B/P, PD, and BN subjects on past levels of depression, differences were found among the groups [$F (2, 182) = 3.66$, $p < .028$]; however, using the more conservative p-value of .01 these differences were no longer significant. See Figure 3.

Figure 5: IDS-SR Comparisons among Groups



The Eating Disorder Examination-Q4 (EDE-Q4) (Fairburn & Cooper, 1993) was completed by the Chicago, Ohio, Tampa, and North Dakota participants. The groups differed on restraint [F (2, 203) = 8.936, p < .000]. AN-B/P (p < .001) subjects had significantly higher rating of restraint than the BN subjects. PD subjects Restraint scores approached statistically significant difference from AN-B/P (p < .003). The groups differed on eating concerns [F (2, 203) = 8.26, p <.01] with PD patients endorsing significantly lower Eating Concern ratings than the AN-B/P (p < .000) and BN (p < .000) subjects. AN-B/P and BN subjects did not differ (p = .159). There were no differences among the groups on the Weight Concern [F (2, 202) = 1.40, p = .248] or Shape Concern [F (2,203) = 1.179, p = .310] subscales.

Figure 6: EDE-Q4 Comparisons among Groups



CHAPTER V

DISCUSSION

The purpose of the current study was to describe behavioral traits of PD subjects and compare these behaviors and other psychiatric comorbidities, specifically depression and eating pathology, to AN-B/P and BN. Data (N= 1033) were collected from five sites and a diagnostic algorithm was applied allowing for classification and analysis of three diagnostic groups. ANOVA comparisons were made to examine differences among groups.

The results of this study show that the majority of PD subjects are normal weight; however 10% of PD participants were overweight, a result that is similar to the weight classification of BN patients (APA, 2004). In fact, one bariatric surgery candidate was in the dataset. Although previous PD research used weight as a defining criterion (Keel, Haedt, & Edler, 2005), it remains unclear whether weight should be a diagnostic feature of PD. Comparisons between normal weight and overweight PD subjects may elucidate difference among these groups. Additionally, further clarification about the use of weight as the main criterion to distinguish AN-B/P to PD is necessary in order to elaborate the differences between the two disorders. For example, in our sample if the weight criterion (e.g., "normal weight") was removed from the PD subject classification, 11 AN-B/P patients would be classified as PD patients (i.e., patients who purge in the absence of OBES).

Some PD patients (n=10) reported a history of OBES. This finding suggests that there may be patients who transition to PD from another diagnosis that involves binge eating (i.e., BN, BED, and/or EDNOS) or, conversely, patients may begin their eating disorder with a diagnosis of PD and remain in this diagnostic category. Future research should compare PD patients with and without a history of OBE's to determine if commonalities exist between the pathology of the two groups. If differences exist, this may provide additional evidence regarding the value of defining OBE's and SBE's in diagnostic classification, as the research on the severity of comorbid psychopathology in subjective and objective binge eaters has been mixed (Keel, Mayer, and Harnden-Fischer, 2001; Pratt, Niego, & Agras, 1998).

Our data also showed that the PD subjects were seen in the earliest entries in the database (1979-1984) suggesting that the behavior pattern being describe has been occurring for a considerable amount of time. Because of sampling differences at each of the sites, information about prevalence of PD or other trends cannot be established from this dataset. Additional information about prevalence rates of PD and how they compare to prevalence and incidence of BN and AN can be helpful in describing the disorder as a unique diagnostic entity. Because PD is currently considered or studied as a subthreshold or EDNOS syndrome (e.g., le Grange, et al., 2006) and because the prevalence of subthreshold BN has been suggested to be higher than that of full-threshold BN (Whitehouse, Cooper, Vize, Hill, & Vogel, 1992), the rates of PD may be especially high and this may emphasize the importance of studying the treatment of individuals with the disorder.

The majority of PD patients endorsed restricting behaviors such as skipping meals, and eating small meals and low calories meals. The patients largely used vomiting and laxative abuse as compensatory behaviors. The AN and BN groups did not differ in the number of purging methods that were used. The frequency of vomiting within the previous month was lower in the AN-B/P and PD subjects compared to that of BN subjects; however, the reverse trend occurred with laxative use where AN-B/P and PD patients endorsed a similar frequency of use the when compared to BN patients, who used the methods less that the other two groups. These findings suggest similarities in the number of purging methods used, but clear differences in the frequency of purging behavior when comparing the three groups.

In terms of weight, PD subjects appeared to be normal to overweight, based on BMI calculations. AN-B/P wished to weight significantly less than PD and BN which appears to be consistent with the current conceptualization of PD by Keel et al. (2005). AN-B/P subject's had lower weight and greater desire for thinness than the other two groups. However, PD patients were equivalent to AN-B/P in EDE-Q4 Restraint. Additionally, PD patients had the lowest Eating Concern as measured by the EDE-Q4, a finding that was supported in previous research (Wade, 2007; le Grange, et al., 2006; Keel, et al., 2005), suggesting PD patients level of distortion about food intake may be less severe than that of the other two groups. In this study, depressive symptoms were most severe in AN-B/P subjects compared to BN and PD groups, although with our more conservative Bonferroni p-value the groups did not differ significantly. The score pattern does however trend in the direction of previous research (le Grange, et al., 2006; Keel, Haedt, Edler, 2005).

There are several limitations to the current study. First, the data was retrospective and collected based on self-report. Data collected in this manner can sometimes be skewed due to possible unwillingness to report symptomatology by patients (Vandereycken & Van Humbeeck, 2008). Additionally, diagnostic classification was based upon self-report, instead of using a stringent clinician diagnosis or clinical interview. Diagnoses we also based solely on one month duration of symptoms and the diagnostic criteria did not control for diagnostic crossover. That is, it is possible that some subjects in the PD group carried an alternate ED diagnosis at some other point in their life. We also included patients in the PD group who endorsed past OBES. A control group would have also been beneficial in understanding differences among the groups. Our PD sample size in our comparisons among IDS-SR and EDE-Q scores was somewhat small and a larger sample would increase power and generalizability of this group of subjects.

In the future, a study which can control for diagnostic overlap and history of OBEs should examine differences between PD and AN-B/P subjects to better identify additional ways in which these groups differ. Research should also examine the importance of weight as a defining criterion of these disorders, as AN-B/P subjects and PD subjects appear to look mostly similar on EDE scores and both groups may not have OBE episodes (APA, 2000). Additionally, researchers should examine differences in the BN and PD subjects, in terms of current compensatory behaviors in order to determine if non-purging techniques (i.e., fasting or excessive exercise) are used as commonly as purging techniques in these groups.

Given the differences that have emerged between the groups, it is essential to further study the treatment of PD to better understand if pharmacological agents (i.e., fluoxetine)

or psychotherapy such as cognitive behavioral therapy (CBT) or interpersonal therapy (IPT) as used with BN or AN patients (American Psychiatric Association, 2006) can be effective in the PD population. If PD is a less severe variant of BN, it may be important to assess whether or not PD patients face a chronic course, and whether their symptoms resolve more quickly than that of full threshold BN or AN-B/P patients. With the results of the current study, it may be of interest for researchers to address previous weight loss as a precursor to the emergence of PD, along with family studies to address the comorbidity and hereditability of PD.

APPENDIX 1

7/1/98

CONSENT FORM

"An Eating Disorders Research Database"

You are invited to participate in a research study of individuals who have eating disorders or eating problems. You were selected as a possible participant because you are being seen for evaluation in the Eating Disorders Institute. We ask that you read this form and ask any questions you might have before deciding whether or not to be in this study.

This study is being conducted by the Eating Disorders Institute, which is a program sponsored jointly by the MeritCare Health System, the Neuropsychiatric Research Institute, and the University of North Dakota, Department of Neuroscience. The study is being conducted by Dr. James Mitchell and Dr. Steve Wonderlich.

The purpose of this study is to obtain detailed information about people who have eating disorders or other eating problems and to compare this information with information about people with other problems and to information obtained at other research centers who treat patients who have eating disorders. When you requested or were referred for an evaluation in this Institute, you were sent information about the evaluation process and a detailed database that you were asked to complete and mail back or bring with you to the evaluation. This database asks you detailed questions about your current situation, current eating problems, prior eating problems, other health problems, family history, current and prior medications, and various questions about your overall emotional and physical health. That questionnaire is used as part of the evaluation process so that the staff responsible for the evaluation can know as much as possible about you so that they can properly diagnose and recommend treatment to you and/or to your referring physician. The information obtained on these forms will be kept as part of your clinical record and will only be released to an outside source if you give permission for the release of your medical information.

We are asking your permission to also use this information for research purposes and to contact you later for follow up. If you give us permission, this information will be entered into a computer database at the Neuropsychiatric Research Institute. Information obtained from you and from other people who were seen in the Institute will be compared and analyzed so that we can learn more about eating disorders. Some of the information may also be compared to data obtained on similar groups of patients at other eating disorders research programs around the country and overseas.

If you give us permission to do this, the information can be entered in one of two ways:

1) The information can be entered in such a way that identifiers that would link the information to you (your name, date of birth, address) would be deleted or removed. Only information that could not be linked to you would be entered into the data base and no record would be kept that would identify you as having been seen at the Institute or having contributed data to the database as part of the research file;

2) Information can be entered in such a way that it could be linked to your name through a confidential file only accessible to Drs. Mitchell and Wonderlich and their staff. In this way you can be contacted later on for follow up, and the information as to how you are doing at that point could be compared to the information obtained at evaluation. If you gave permission for the linkage to exist, it would not exist in the computer but only on a code list that would be kept locked in the Investigators'

filing cabinets. It would not be released outside of the research office and would not be released to other research centers.

If you agree to let us keep such a code, we also request that we be allowed to contact you and follow up with you to find out how you are doing. Another goal of this research is to established a database that allows us to examine the impacts of various treatments on the course of eating problems and eating disorders and also to study what happens to people with such eating problems over time, regardless of the treatment they received. Therefore, if you would allow us to keep such a linkage, we also request that you allow us to contact you for follow up.

The follow up would involve two components:

1) In-person interviews. This would require you to come to our clinic or if it would be more convenient, we could have someone visit you in your home. This interview would take approximately 1 hour of your time. During this interview we would ask you detailed questions about your eating behavior, weight, any psychological problems you might have been having and any medical problems you might be having. It would also ask you to rate yourself on certain questions such as your concerns about weight and shape issues. This interview would be done once a year for up to 10 years. You would be paid $15 for this interview if we visited you in your home or $25 if you could come to the clinic to help compensate you for the inconvenience;

2) A phone interview that would be done at 6 month intervals alternating with the in-person interview. The phone interview would ask some of the same sorts of questions but would be about 20 minutes in duration.

When you are contacted for these interviews, we would not identify ourselves to anyone else and would simply indicate that we were a friend of yours trying to find you, if someone else answered the phone. No one else would be given any information about your previous involvement or current involvement with this study or the Institute.

The study has a few risks, most of which are minor. First, some of the questions that are asked of you might at times be upsetting, and you are certainly free to not answer any questions that you would prefer not to answer. Also, some people find it upsetting to have to talk about psychological and eating problems long after having received treatment. However, it is important to bear in mind that if you agree to be in the study you can withdraw at any time and refuse any interview.

If in the course of the follow up study it appears that you are having problems for which we would recommend that you receive further treatment, we would be glad to refer you to an appropriate treatment resource in your area.

You will not directly benefit from participation in this study. Your participation may help us to learn more about the course and outcome of problem eating behavior and eating disorders.

In the event that this research activity results in an injury, treatment will be available including first aid, emergency treatment, and follow up care as needed. Payment for such treatment must be provided by you or your third party payer, if any (such as health insurance, Medicare, etc.). For information concerning the research and research-related injuries, you can notify Dr. James Mitchell at (701) 293-1335. In addition, you may contact Juli Caron at (701) 234-5146 for more information regarding patients' rights in research studies. This research is being conducted by researchers

affiliated with MeritCare, the Neuropsychiatric Research Institute, and the UND Department of Neurosciences.

The records of this study will be kept private and any sort of report we might publish will not include any information that will make it possible to identify you.

Your decision of whether or not to participate will not affect current or future relationships with the Eating Disorders Institute, MeritCare, the Neuropsychiatric Research Institute, or the University of North Dakota. If you decide to participate you are free to withdraw at any time without affecting those relationships.

The researchers conducting the study are Dr. James Mitchell and Dr. Steve Wonderlich. You may ask any questions you have now or if you have questions later you may contact them at the Neuropsychiatric Research Institute (701-293-1335).

You will be given a copy of this consent form to keep for your records.

If you consent to participate, please indicate below your level of participation.

☐ I give my consent to have the data from my baseline assessment placed in the Eating Disorders Institute research database; however, no information should be entered that will identify me as having been seen there.

☐ I give my consent to have my data from my baseline assessment placed in the Eating Disorders Institute research database. I also give permission for my name to be linked to the record through a code sheet to be kept separate from the data to which only the investigators, Dr. Mitchell, Dr. Wonderlich, or their staff will have access. This information will not be released outside of the research clinic. I also give permission to be contacted every 6 months for a phone or in-person interview for up to 10 years.

Only fill in this box if you give us permission to contact you every 6 months for an interview.
Phone Number _____ Social Security Number _____-_____-_____
Address _____
Name of Relative who will know your address _____
Phone Number _____
Address _____
We will not identify ourselves if we need to contact this person to find you.

_____ _____
Signature of Patient Date

_____ _____
Signature of Witness Date

APPENDIX 2

BED

EDQ

STAFF USE ONLY ID#: ___ Site: ___ Study #: 0 1 Week: ___ Date: ___ / ___ / ___

INSTRUCTIONS: Please fill in the circle that best describes you for each item.

A. DEMOGRAPHIC INFORMATION

1. Sex: ○ Female ○ Male
2. Current Age: _____ years

   Date of Birth: ___ / ___ / ___
3. Are you Hispanic/Latino? ○ Yes ○ No
4. Race (fill in only one):
   - ○ White
   - ○ Black or African American
   - ○ American Indian/Alaska Native
   - ○ Asian
   - ○ Native Hawaiian or Other Pacific Islander
   - ○ More than one race
   - ○ Other (please specify) _____
5. Marital Status (fill in only one):
   - ○ Never married
   - ○ Married (first marriage)
   - ○ Divorced or widowed and presently remarried
   - ○ Monogamous relationship, living with partner (but not married)
   - ○ Monogamous relationship, not living with partner
   - ○ Divorced and not presently married
   - ○ Widowed and not presently remarried
6. What is your primary role? (fill in only one)
   - ○ Wage earner, full-time
   - ○ Wage earner, part-time
   - ○ Student, full-time
   - ○ Student, part-time
   - ○ Homemaker
   - ○ Unemployed
   - ○ Other (specify) _____

B. WEIGHT HISTORY

1. Current Weight: ___ lbs.
2. Current Height: ___ ft. ___ in.
3. I would like to weigh: ___ lbs.
4. Using the figures from the last page of this questionnaire, please select the figure that looks most like your current figure.

   Figure # ○1 ○2 ○3 ○4 ○5 ○6 ○7 ○8 ○9
5. If you could look like any one of these figures (last page), which one would you choose?

   Figure # ○1 ○2 ○3 ○4 ○5 ○6 ○7 ○8 ○9
6. **Highest Weight** (non-pregnancy) since age 18:

   Weight ___ lbs. at Age ___ yrs.
7. **Lowest Weight** since age 18:

   Weight ___ lbs. at Age ___ yrs.
8. **Highest Weight between ages 12 and 18:**

   Weight ___ lbs. at Height ___ ft. ___ in. at age ○12 ○13 ○14 ○15 ○16 ○17
9. **Lowest Weight between ages 12 and 18:**

   Weight ___ lbs. at Height ___ ft. ___ in. at age ○12 ○13 ○14 ○15 ○16 ○17
10. At your current weight, do you feel that you are:
    - ○ Extremely thin
    - ○ Moderately thin
    - ○ Slightly thin
    - ○ Normal weight
    - ○ Slightly overweight
    - ○ Moderately overweight
    - ○ Extremely overweight
11. How much do you fear gaining weight?
    - ○ Not at all
    - ○ Slightly
    - ○ Moderately
    - ○ Very much
    - ○ Extremely

Continue on Next Page

1934616303

ID#: ☐☐☐ Site: ☐☐

12. How dissatisfied are you with the way your body is proportioned?

- O Not at all dissatisfied
- O Slightly dissatisfied
- O Moderately dissatisfied
- O Very dissatisfied
- O Extremely dissatisfied

13. How important is your weight and shape in affecting how you feel about yourself as a person?

- O Not at all important
- O Slightly important
- O Moderately important
- O Very important
- O Extremely important

14. How fat do you currently feel?

- O Not at all fat
- O Slightly fat
- O Fat
- O Very fat
- O Extremely fat

15. **Please indicate on the scales below how you feel about different areas of your body.** (Fill in the circle of best response for each body part.)

	(a) Face	(b) Arms	(c) Shoulders	(d) Breasts	(e) Stomach	(f) Waist	(g) Hips	(h) Buttocks	(i) Thighs
Extremely positive	O	O	O	O	O	O	O	O	O
Moderately positive	O	O	O	O	O	O	O	O	O
Slightly positive	O	O	O	O	O	O	O	O	O
Neutral	O	O	O	O	O	O	O	O	O
Slightly negative	O	O	O	O	O	O	O	O	O
Moderately negative	O	O	O	O	O	O	O	O	O
Extremely negative	O	O	O	O	O	O	O	O	O

16. On the average, how often do you weigh yourself?

- O Never
- O Less than monthly
- O Monthly
- O Several times/month
- O Weekly
- O Several times/week
- O Daily
- O 2 or 3 times/day
- O 4 or 5 times/day
- O More than 5 times/day

C. DIETING BEHAVIOR

1. On the average, how many main meals do you eat each day? ☐☐

2. On the average, how many snacks do you eat each day? ☐☐

3. On the average, how many days a week do you eat the following meals?

Breakfast: ☐ days a week Lunch: ☐ days a week Dinner: ☐ days a week

4. Do you try to avoid certain foods in order to influence your shape or weight?

- O Yes (If Yes, what?) _____
- O No

5. Have you ever been on a diet, restricted your food intake, and/or reduced the amounts or types of food eaten to control your weight?

- O Yes
- O No (If No, go to section D, "BINGE EATING BEHAVIOR")

6. At what age did you first begin to diet, restrict your food intake, and/or reduce the amount or types of food eaten to control your weight? ☐☐ years old

7. At what age did you first begin to diet, restrict your food intake, and/or reduce the amount or types of food eaten to lose weight? ☐☐ years old

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8. Over the last year, how often have you begun a diet that lasted for more than 3 days?

☐☐☐ times

9. Over the last year, how often have you begun a diet that lasted for 3 days or less?

☐☐☐ times

10. Indicate your preferred ways of dieting (fill in all that apply).

- ○ Skip meals
- ○ Completely fast for 24 hours or more
- ○ Restrict carbohydrates
- ○ Restrict sweets/sugar
- ○ Reduce fats
- ○ Reduce portion size
- ○ Exercise more
- ○ Reduce calories
- ○ Other: _____

11. In which of the following treatments or types of treatment for eating or weight problems have you participated?

(a) Supervised Diets:	Yes	No	If Yes, ages used	Weight at Start	Weight at End
Weight Watchers®	○	○			
Jenny Craig®	○	○			
Nutrasystems®	○	○			
Optifast®	○	○			
Procal®	○	○			
Nutramed®	○	○			
Liquid protein diet	○	○			
Others: _____	○	○			

(b) Medication for Obesity:	Yes	No	If Yes, ages used	Weight at Start	Weight at End
Phentermine	○	○			
Fenfluramine	○	○			
Xenical (Orlistat®)	○	○			
Sibutramine (Meridia®)	○	○			
Topiramate (Topomax®)	○	○			
Over-the-counter diet pills (specify):	○	○			
Other medication treatment (specify):	○	○			
Human Chorionic Gonadotropin (HCG)	○	○			
Others: _____	○	○			

(c) Psychotherapy for Eating Problems, Weight Loss, or Weight Gain:	Yes	No	If Yes, ages used	Weight at Start	Weight at End
Behavior Modification	○	○			
Individual Psychotherapy	○	○			
Group Psychotherapy	○	○			
Hypnosis	○	○			
Others: _____	○	○			

(d) Psychotherapy for Eating Disorder:	Yes	No	If Yes, ages used	Weight at Start	Weight at End
Individual Cognitive Behavioral	○	○			
Group Cognitive Behavioral	○	○			
Interpersonal Psychotherapy	○	○			
NutritionalCounseling	○	○			
Others: _____	○	○			

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(e) Medication for Eating Problems/Weight Problems:	Yes	No	If Yes, ages used	If Yes, maximum dosage
Fluoxetine (Prozac®)	○	○		
Desipramine (Norpramin®)	○	○		
Paroxetine HCl (Paxil®)	○	○		
Sertraline HCl (Zoloft®)	○	○		
Citalopram (Celexa®)	○	○		
Fluvoxamine (Luvox®)	○	○		
Naltrexone (Trexan®)	○	○		
Others:	○	○		

(f) Self-help groups:	Yes	No	If Yes, ages used
Bulimia Anonymous	○	○	
Overeaters Anonymous	○	○	
Anorexics Anonymous	○	○	
Others:	○	○	

(g) Surgical Procedures:	Yes	No	If Yes, at what age	Weight at Start	Weight at End
Liposuction	○	○			
Gastric bypass	○	○			
Other intestinal surgery (specify):	○	○			
Gastric balloon/"bubble"	○	○			
Others:	○	○			

12. Please record your major diets which resulted in a weight loss of 10 pounds or more.

	Age at time of diet	Weight at start of diet	# lbs. lost	Type of diet
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				
(10)				

13. Have you ever had any significant physical or emotional symptoms while attempting to lose weight or after losing weight?

○ Yes ○ No

If Yes, describe your symptoms, how long they lasted, if they made you stop your weight loss program, and if they made you seek professional help.

Problem	Year	Duration (weeks)	Stopped weight loss program? Yes	No	Type of professional help, if any
			○	○	
			○	○	
			○	○	
			○	○	
			○	○	

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D. BINGE EATING BEHAVIOR

1. Have you ever had an episode of binge eating characterized by:

   (a) eating, in a discrete period of time (e.g., within any two hour period), an amount of food that is definetely larger than most people eat in a similar period of time?
   ○ Yes ○ No

   (b) 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)?
   ○ Yes ○ No

   If No to either a) or b), go to section E, "WEIGHT CONTROL BEHAVIOR."

2. Please indicate on the scales below how characteristic the following symptoms are or were of your binge eating.

	Never	Rarely	Sometimes	Often	Always
(a) feeling that I can't stop eating or control what or how much I eat	○	○	○	○	○
(b) eating much more rapidly than usual	○	○	○	○	○
(c) eating until I feel uncomfortably full	○	○	○	○	○
(d) eating large amounts of food when not feeling physically hungry	○	○	○	○	○
(e) eating alone because I am embarrassed by how much I am eating	○	○	○	○	○
(f) feeling disgusted with myself, depressed, or very guilty after overeating	○	○	○	○	○
(g) feeling very distressed about binge eating	○	○	○	○	○

3. How old were you when you began binge eating?
   ☐☐ years old

4. When did binge eating start to occur on a regular basis, on average at least 2 times each week?
   ☐☐ years old

5. What was your height and weight at that time?
   Weight ☐☐☐ lbs. at Height ☐ ft. ☐☐ in.

6. What is the total duration of time you had a problem with binge eating (whether or not you are binge eating now)?
   Days ☐☐ Months ☐☐ Years ☐☐

E. WEIGHT CONTROL BEHAVIOR

1. Have you ever self-induced vomiting after eating in order to get rid of the food eaten?
   ○ Yes ○ No (If No, go to question 8.)

2. How old were you when you induced vomiting for the first time?
   ☐☐ years old

3. How old were you when you first induced vomiting on a regular basis (on average at least two times each week)?
   ☐☐ years old

4. How long did you self-induce vomiting?
   Days ☐☐ Months ☐☐ Years ☐☐

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5. Have you ever taken syrup of Ipecac® to control your weight?
   ○ Yes ○ No

6. How old were you when you took Ipecac® for the first time?
   years old

7. How long did you use Ipecac® to control your weight?
   Days Months Years

8. Have you ever used laxatives to control your weight or "get rid of food?"
   ○ Yes ○ No (If No, go to question 13.)

9. How old were you when you first took laxatives for weight control?
   years old

10. How old were you when you first took laxatives for weight control (on a regular basis on average at least two times each week)?
    years old

11. How long did you use laxatives for weight control?
    Days Months Years

12. What type and amounts of laxatives have you used? (Indicate all types that apply and the maximum number used per day.)

	Yes	No	Maximum Number per Day: 1	2	3	4	5	6-10	11-20	>20
Ex-Lax®	○	○	○	○	○	○	○	○	○	○
Correctol®	○	○	○	○	○	○	○	○	○	○
Metamucil®	○	○	○	○	○	○	○	○	○	○
Colace®	○	○	○	○	○	○	○	○	○	○
Dulcolax®	○	○	○	○	○	○	○	○	○	○
Phillips Milk of Magnesia®	○	○	○	○	○	○	○	○	○	○
Senokot®	○	○	○	○	○	○	○	○	○	○
Perdiem®	○	○	○	○	○	○	○	○	○	○
Fleet®	○	○	○	○	○	○	○	○	○	○
Other (specify): _____	○	○	○	○	○	○	○	○	○	○

13. Have you ever used diuretics (water pills) to control your weight?
    ○ Yes ○ No (If No, go to question 18.)

14. How old were you when you first took diuretics for weight control?
    years old

15. How old were you when you first took diuretics for weight control (on a regular basis, on average at least two times each week)?
    years old

16. How long did you use diuretics for weight control?
    Days Months Years

17. What type and amount of diuretics have you used? (Indicate all that apply and the maximum number used per day.)

(a) Over-the-counter Diuretics:	Yes	No	Maximum Number per Day: 1	2	3	4	5	6	7	8	9	10	>10
Aqua-Ban®	○	○	○	○	○	○	○	○	○	○	○	○	○
Diurex®	○	○	○	○	○	○	○	○	○	○	○	○	○
Midol®	○	○	○	○	○	○	○	○	○	○	○	○	○
Pamprin®	○	○	○	○	○	○	○	○	○	○	○	○	○
Others (specify): _____	○	○	○	○	○	○	○	○	○	○	○	○	○

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(b) Prescription Diuretics:	Yes	No	Maximum Number per Day 1	2	3	4	5	6	7	8	9	10	>10
	○	○	○	○	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○	○	○	○	○

18. Have you ever used diet pills to control your weight?
○ Yes ○ No (If No, please go to question 22.)

19. How old were you when you first used diet pills for weight control?

☐☐ years old

20. How long did you use diet pills to control your weight?

Days ☐☐ Months ☐☐ Years ☐☐

21. What types and amounts of diet pills have you used **within the last month**? (Indicate all that apply and the maximum number per day.)

(a) Over-the-counter:	Yes	No	Maximum Number per Day 1	2	3	4	5	6	7	8	9	10	>10
Dexatrim®	○	○	○	○	○	○	○	○	○	○	○	○	○
Dietac®	○	○	○	○	○	○	○	○	○	○	○	○	○
Acutrim®	○	○	○	○	○	○	○	○	○	○	○	○	○
Protrim®	○	○	○	○	○	○	○	○	○	○	○	○	○
Ma Huang	○	○	○	○	○	○	○	○	○	○	○	○	○
Ephedrine	○	○	○	○	○	○	○	○	○	○	○	○	○
Chromium	○	○	○	○	○	○	○	○	○	○	○	○	○
Guarana seed	○	○	○	○	○	○	○	○	○	○	○	○	○
Other (specify): _____	○	○	○	○	○	○	○	○	○	○	○	○	○

(b) Prescription:	Yes	No	Maximum Number per Day 1	2	3	4	5	6	7	8	9	10	>10
	○	○	○	○	○	○	○	○	○	○	○	○	○
	○	○	○	○	○	○	○	○	○	○	○	○	○

22. During the entire LAST MONTH, what is the average frequency that you have engaged in the following behaviors? (Please fill in one circle for each behavior.)

	Never	Once a Month or Less	Several Times a Month	Once a Week	Twice a Week	Three to Six Times a Week	Once a Day	More Than Once a Day
Binge eating (as defined on pg. 3, D 1.)	○	○	○	○	○	○	○	○
Vomiting	○	○	○	○	○	○	○	○
Laxative use to control weight	○	○	○	○	○	○	○	○
Use of diet pills	○	○	○	○	○	○	○	○
Use of diuretics	○	○	○	○	○	○	○	○
Use of enemas	○	○	○	○	○	○	○	○
Use of Ipecac® syrup	○	○	○	○	○	○	○	○
Exercise to control weight	○	○	○	○	○	○	○	○
Fasting (skipping meals for entire day)	○	○	○	○	○	○	○	○
Skipping meals	○	○	○	○	○	○	○	○
Eating very small meals	○	○	○	○	○	○	○	○
Eating meals low in calories and/or fat grams	○	○	○	○	○	○	○	○
Chewing and spitting out food	○	○	○	○	○	○	○	○
Rumination (vomit food into mouth, chew, and re-swallow	○	○	○	○	○	○	○	○
Saunas to control weight	○	○	○	○	○	○	○	○
Herbal products ("fat burners")	○	○	○	○	○	○	○	○

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23. During any one month period, what is the HIGHEST frequency that you have engaged in the following behaviors? (Please fill in one circle for each behavior.)

	Never	Once a Month or Less	Several Times a Month	Once a Week	Twice a Week	Three to Six Times a Week	Once a Day	More Than Once a Day
Binge eating (as defined on pg. 3, D.1.)	○	○	○	○	○	○	○	○
Vomiting	○	○	○	○	○	○	○	○
Laxative use to control weight	○	○	○	○	○	○	○	○
Use of diet pills	○	○	○	○	○	○	○	○
Use of diuretics	○	○	○	○	○	○	○	○
Use of enemas	○	○	○	○	○	○	○	○
Use of Ipecac® syrup	○	○	○	○	○	○	○	○
Exercise to control weight	○	○	○	○	○	○	○	○
Fasting (skipping meals for entire day)	○	○	○	○	○	○	○	○
Skipping meals	○	○	○	○	○	○	○	○
Eating very small meals	○	○	○	○	○	○	○	○
Eating meals low in calories and/or fat grams	○	○	○	○	○	○	○	○
Chewing and spitting out food	○	○	○	○	○	○	○	○
Rumination (vomit food into mouth, chew, and re-swallow	○	○	○	○	○	○	○	○
Saunas to control weight	○	○	○	○	○	○	○	○
Herbal products ("fat burners")	○	○	○	○	○	○	○	○

F. EXERCISE

1. How frequently do you exercise?
   - ○ Not at all
   - ○ Once per month or less
   - ○ Several times per month
   - ○ Once per week
   - ○ Several times per week
   - ○ Once per day
   - ○ Several times a day

2. If you exercise, how long do you usually exercise each time?
   - ○ Less than 15 minutes
   - ○ 15 - 30 minutes
   - ○ 31 - 60 minutes
   - ○ 61 - 120 minutes
   - ○ More than 120 minutes

3. If you exercise, please indicate the types of exercise you do (fill in all that apply).
   - ○ Biking
   - ○ Running
   - ○ Swimming
   - ○ Weighttraining
   - ○ Aerobics
   - ○ Calisthenics
   - ○ Walking
   - ○ In-lineskating
   - ○ Stairmaster
   - ○ Treadmill
   - ○ Stationary bike
   - ○ Other: _____

G. MENSTRUAL HISTORY

1. Age of onset of menses: ☐☐ years

2. Have you ever had periods of time when you stopped menstruating for three months or more (which were unrelated to pregnancy)?
   ○ Yes ○ No If Yes, number of times: ☐☐

3. Did weight loss ever cause irregularities of your cycle?
   ○ Yes ○ No If Yes, describe:
   _____
   _____

4. Have you menstruated during the last three months?
   ○ Yes ○ No

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5. Are you on birth control pills? ○ Yes ○ No

6. Are you on hormone replacement? ○ Yes ○ No

7. Are you post menopausal? ○ Yes ○ No

8. Please indicate when during your cycle you feel most vulnerable to binge eating. Please fill in the single best response.

○ I do not binge eat during menstruation
○ 11 - 14 days prior to menstruation
○ 7 - 10 days prior to menstruation
○ 3 - 6 days prior to menstruation
○ 1 - 2 days prior to menstruation
○ After menstruation onset
○ No particular time

9. Do you crave particular foods (have a desire or urge to consume a specific food item or drink) for the few days prior to menstruation?

○ Yes ○ No If Yes, what foods do you crave?

_____

_____

10. Do you crave particular foods (have a desire or urge to consume a specific food item or drink) during your menstruation?

○ Yes ○ No If Yes, what foods do you crave?

_____

_____

11. Marriage and pregnancy:

	Yes	No	Does Not Apply
(a) Did problems with weight and/or binge eating begin before you were married?	○	○	○
(b) Did problems with weight and/or binge eating begin after you were married?	○	○	○
(c) Did problems with weight and/or binge eating begin before your first pregnancy?	○	○	○
(d) Did problems with weight and/or binge eating begin after your first pregnancy?	○	○	○

12. Do you have children?

○ Yes ○ No (If No, skip to section H, "HISTORY OF ABUSE.")

(a) For your FIRST child, what was your...
...weight at the start of your pregnancy? ☐☐☐
...weight at delivery? ☐☐☐
...lowest weight in the first year after delivery? ☐☐☐

(b) For your SECOND child, what was your...
...weight at the start of your pregnancy? ☐☐☐
...weight at delivery? ☐☐☐
...lowest weight in the first year after delivery? ☐☐☐

(c) For your THIRD child, what was your...
...weight at the start of your pregnancy? ☐☐☐
...weight at delivery? ☐☐☐
...lowest weight in the first year after delivery? ☐☐☐

(d) For your FOURTH child, what was your...
...weight at the start of your pregnancy? ☐☐☐
...weight at delivery? ☐☐☐
...lowest weight in the first year after delivery? ☐☐☐

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H. HISTORY OF ABUSE

1. Before you were 18, did any of the following happen to you?

Yes	No	
O	O	Someone constantly criticized you and blamed you for minor things.
O	O	Someone physically beat you (hit you, slapped you, threw something at you, pushed you).
O	O	Someone threatened to hurt or kill you, or do something sexual to you.
O	O	Someone threatened to abandon or leave you.
O	O	You watched one parent physically beat (hit, slap) the other parent.
O	O	Someone from your family forced you to have sexual relations (unwanted touching, fondling, sexual kissing, sexual intercourse).
O	O	Someone outside your family forced you to have sexual relations (unwanted touching, fondling, sexual kissing, sexual intercourse).

2. After you were 18, did any of the following happen to you?

Yes	No	
O	O	Someone constantly criticized you and blamed you for minor things.
O	O	Someone physically beat you (hit you, slapped you, threw something at you, pushed you).
O	O	Someone threatened to hurt or kill you, or do something sexual to you.
O	O	Someone threatened to abandon or leave you.
O	O	You watched one parent physically beat (hit, slap) the other parent.
O	O	Someone from your family forced you to have sexual relations (unwanted touching, fondling, sexual kissing, sexual intercourse).
O	O	Someone outside your family forced you to have sexual relations (unwanted touching, fondling, sexual kissing, sexual intercourse).

I. PSYCHIATRIC HISTORY

1. Have you ever been hospitalized for psychiatric problems?

O Yes (If Yes, please complete the section below.)
O No

HOSPITAL NAME & ADDRESS (CITY, STATE)	WHAT YEAR	DIAGNOSIS (IF KNOWN) OR PROBLEMS YOU WERE HAVING	TREATMENT YOU RECEIVED	WAS THIS HELPFUL? Yes	No
				O	O
				O	O
				O	O
				O	O
				O	O

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2. Have you ever been treated out of the hospital for psychiatric problems?
   - O Yes (If Yes, please complete the section below.)
   - O No

YEAR(S) WHEN TREATED	DOCTOR OR THERAPIST'S NAME & ADDRESS (CITY, STATE)	DIAGNOSIS (IF KNOWN) OR PROBLEMS YOU WERE HAVING	TREATMENT YOU RECEIVED	WAS THIS HELPFUL? Yes	No
				O	O
				O	O
				O	O
				O	O
				O	O

3. Complete the following information for any of the following types of medications you are now taking or have ever taken:

		Took Previously	On Currently	Current Dosage	If taking currently, for what problem?
(a) ANTIDEPRESSANTS					
Prozac®	(Fluoxetine)	O	O		
Zoloft®	(Sertraline)	O	O		
Paxil®	(Paroxetine)	O	O		
Luvox®	(Fluvoxamine)	O	O		
Celexa®	(Citalopram)	O	O		
Effexor®	(Venlafaxine)	O	O		
Wellbutrin®	(Bupropion)	O	O		
Elavil®	(Amitriptyline)	O	O		
Tofranil®	(Imipramine)	O	O		
Sinequan®	(Doxepin)	O	O		
Norpramin®	(Desipramine)	O	O		
Vivactil®	(Protriptyline)	O	O		
Desyrel®	(Trazodone)	O	O		
Parnate®	(Tranylcypromine)	O	O		
Nardil®	(Phenelzine)	O	O		
Anafranil®	(Clomipramine)	O	O		
Remeron®	(Mirtazapine)	O	O		
Serzone®	(Nefazodone)	O	O		
St. John's Wort		O	O		
(b) MAJOR TRANQUILIZERS					
Clozaril®	(Clozapine)	O	O		
Zyprexa®	(Olanzepine)	O	O		
Risperdal®	(Risperidone)	O	O		
Haldol®	(Haloperidol)	O	O		
Navane®	(Thiothixene)	O	O		
Trilafon®	(Perphenazine)	O	O		
Thorazine®	(Chlorpromazine)	O	O		
Stelazine®	(Trifluoperazine)	O	O		
Prolixin®	(Fluphenazine)	O	O		
Orap®	(Pimozide)	O	O		
Moban®	(Molindone)	O	O		
Loxitane®	(Loxapine)	O	O		
Seroquil®	(Quetiapine)	O	O		
Mellaril®	(Thioridazine)	O	O		

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		Took Previously	On Currently	Current Dosage	If taking currently, for what problem?
(c) MINOR TRANQUILIZERS					
Valium®	(Diazepam)	○	○		
Librium®	(Chlordiazepoxide)	○	○		
Serax®	(Oxazepam)	○	○		
Halcion®	(Triazolam)	○	○		
Tranxene®	(Clorazepate)	○	○		
Ambien®	(Zolpidem)	○	○		
Klonopin®	(Clonazepam)	○	○		
Ativan®	(Lorazepam)	○	○		
BuSpar®	(Buspirone)	○	○		
Dalmane®	(Flurazepam)	○	○		
Xanax®	(Alprazolam)	○	○		
(d) MOOD STABILIZERS					
Lithobid®	Lithium	○	○		
Depakote®	Sodium Valproate®	○	○		
Tegretol®	(Carbamazepine)	○	○		
Topomax®	(Topiramate)	○	○		
OTHER:		○	○		
OTHER:		○	○		
OTHER:		○	○		
OTHER:		○	○		

J. MEDICAL HISTORY

1. Please list all medical hospitalizations:

WHEN? YEAR(S)	WHERE? (Hospital Name & City)	PROBLEM	DIAGNOSIS	TREATMENT YOU RECEIVED

2. Please list all other medical treatment you've received. (Include any significant problem, but do not include flu, colds, routine exams.)

WHEN? YEAR(S)	WHERE? (Doctor's Name & Address)	PROBLEM	DIAGNOSIS	TREATMENT YOU RECEIVED

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K. CHEMICAL USE HISTORY

1. In the last six months, how often have you taken these drugs?

	Not At All	Less Than Monthly	About Once a Month	Several Times a Month	About Once a Week	Several Times a Week	Daily	Several Times a Day
ALCOHOL	O	O	O	O	O	O	O	O
STIMULANTS (Amphetamines, Uppers, Crank, Speed)	O	O	O	O	O	O	O	O
DIET PILLS	O	O	O	O	O	O	O	O
SEDATIVES (Barbiturates, Sleeping Pills, Valium®, Librium®, Downers)	O	O	O	O	O	O	O	O
MARIJUANA/HASHISH	O	O	O	O	O	O	O	O
HALLUCINOGENS (LSD, Mescaline, Mushrooms, Extasy)	O	O	O	O	O	O	O	O
OPIATES (Heroin, Morphine, Opium)	O	O	O	O	O	O	O	O
COCAINE/CRACK	O	O	O	O	O	O	O	O
PCP (Angel Dust, Phencyclidine)	O	O	O	O	O	O	O	O
INHALANTS (Glue, Gasoline, etc.)	O	O	O	O	O	O	O	O
CAFFEINE PILLS (No Doz®, Vivarin®, etc.)	O	O	O	O	O	O	O	O
OTHER: _____	O	O	O	O	O	O	O	O
_____	O	O	O	O	O	O	O	O

2. What is the most you have used any of these drugs during a one-month period (month of heaviest use)?

(Example: If you used sleeping pills about once a month many years ago, but not at all now, you would fill in the circle under "About Once a Month" on the line "Sedatives - Barbiturates...")

	Not At All	Less Than Monthly	About Once a Month	Several Times a Month	About Once a Week	Several Times a Week	Daily	Several Times a Day
ALCOHOL	O	O	O	O	O	O	O	O
STIMULANTS (Amphetamines, Uppers, Crank, Speed)	O	O	O	O	O	O	O	O
DIET PILLS	O	O	O	O	O	O	O	O
SEDATIVES (Barbiturates, Sleeping Pills, Valium®, Librium®, Downers)	O	O	O	O	O	O	O	O
MARIJUANA/HASHISH	O	O	O	O	O	O	O	O
HALLUCINOGENS (LSD, Mescaline, Mushrooms, Extasy)	O	O	O	O	O	O	O	O
OPIATES (Heroin, Morphine, Opium)	O	O	O	O	O	O	O	O
COCAINE/CRACK	O	O	O	O	O	O	O	O
PCP (Angel Dust, Phencyclidine)	O	O	O	O	O	O	O	O
INHALANTS (Glue, Gasoline, etc.)	O	O	O	O	O	O	O	O
CAFFEINE PILLS (No Doz®, Vivarin®, etc.)	O	O	O	O	O	O	O	O
OTHER: _____	O	O	O	O	O	O	O	O
_____	O	O	O	O	O	O	O	O

3. Assuming all the drugs mentioned above were readily available, which would you prefer? _____

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Have you ever had any of the following problems because of your alcohol or drug use? (if Yes, please specify.)

4.	Drinking and driving when unsafe?	O Yes.....When? O No	O More than 6 months ago O During the past 6 months O Both
5.	Medical problems?	O Yes.....When? O No	O More than 6 months ago O During the past 6 months O Both
6.	Problems at work or school?	O Yes.....When? O No	O More than 6 months ago O During the past 6 months O Both
7.	An arrest?	O Yes.....When? O No	O More than 6 months ago O During the past 6 months O Both
8.	Family trouble?	O Yes.....When? O No	O More than 6 months ago O During the past 6 months O Both

---

9. Have you ever smoked cigarettes?
   - O Yes
   - O No (If No, go to question 10.)

What was the most you ever smoked?
- O Only occasionally
- O Less than one pack per day
- O About one pack per day
- O One to two packs per day
- O About two packs per day
- O More than two packs per day

If you are smoking now, how much do you smoke?
- O Only occasionally
- O Less than one pack per day
- O About one pack per day
- O One to two packs per day
- O About two packs per day
- O More than two packs per day

---

10. Do you drink coffee?
    - O Yes
    - O No (If No, go to question 11.)

On the average, how many cups of caffeinated coffee do you drink per day?

O Less than 1	O 4 cups
O 1 cup per day	O 5 cups
O 2 cups	O 6 - 10 cups
O 3 cups	O More than 10 cups

On the average, how many cups of decaffeinated coffee do you drink per day?

O Less than 1	O 4 cups
O 1 cup per day	O 5 cups
O 2 cups	O 6 - 10 cups
O 3 cups	O More than 10 cups

---

11. Do you drink tea?
    - O Yes
    - O No (If No, go to question 12.)

On the average, how many cups of caffeinated tea do you drink per day?

O Less than 1	O 4 cups
O 1 cup per day	O 5 cups
O 2 cups	O 6 - 10 cups
O 3 cups	O More than 10 cups

On the average, how many cups of decaffeinated tea do you drink per day?

O Less than 1	O 4 cups
O 1 cup per day	O 5 cups
O 2 cups	O 6 - 10 cups
O 3 cups	O More than 10 cups

---

12. Do you drink cola or soft drinks?
    - O Yes
    - O No (If No, go to next section.)

On the average, how many cans/glasses of caffeinated cola or soft drinks do you drink per day?

O Less than 1	O 4 cans
O 1 can per day	O 5 cans
O 2 cans	O 6 - 10 cans
O 3 cans	O More than 10 cans

On the average, how many cans/glasses of decaffeinated cola or soft drinks do you drink per day?

O Less than 1	O 4 cans
O 1 can per day	O 5 cans
O 2 cans	O 6 - 10 cans
O 3 cans	O More than 10 cans

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L. FAMILY MEMBERS

1.

	NAME	AGE IF LIVING	CAUSE OF DEATH	AGE AT DEATH
FATHER				
MOTHER				
BROTHERS & SISTERS				
SPOUSE				
CHILD 1				
CHILD 2				
CHILD 3				
CHILD 4				

2. Are you a twin? ○ Yes ○ No
(If Yes, is your twin identical? ____Yes ____No)

3. Were you adopted? ○ Yes ○ No
(If Yes, at what age were you adopted? _____)

M. FAMILY MEDICAL AND PSYCHIATRIC HISTORY

1. Fill in the circle in the column of any of your *blood relatives* who has, or has had, the following conditions or problems:

* *Include half brothers/half sisters*

CONDITIONS	MOTHER	FATHER	*BROTHERS	*SISTERS	UNCLES	AUNTS	GRANDPARENTS	CHILDREN
Alcoholism or Drug Abuse	○	○	○	○	○	○	○	○
Anorexia Nervosa	○	○	○	○	○	○	○	○
Anxiety	○	○	○	○	○	○	○	○
Arthritis/Rheumatism	○	○	○	○	○	○	○	○
Asthma, Hay Fever, or Allergies	○	○	○	○	○	○	○	○
Binge-Eating	○	○	○	○	○	○	○	○
Birth Defects	○	○	○	○	○	○	○	○
Bleeding Problems	○	○	○	○	○	○	○	○
Bulimia Nervosa	○	○	○	○	○	○	○	○
Cataracts	○	○	○	○	○	○	○	○
Cancer or Leukemia	○	○	○	○	○	○	○	○
Colitis	○	○	○	○	○	○	○	○
Deafness	○	○	○	○	○	○	○	○
Depression	○	○	○	○	○	○	○	○
Diabetes	○	○	○	○	○	○	○	○
Drug Abuse	○	○	○	○	○	○	○	○
Epilepsy (seizures, fits)	○	○	○	○	○	○	○	○
Eczema	○	○	○	○	○	○	○	○
Gall Bladder Malfunction	○	○	○	○	○	○	○	○
Gambling	○	○	○	○	○	○	○	○
Glaucoma	○	○	○	○	○	○	○	○
Gout	○	○	○	○	○	○	○	○
Heart Attack	○	○	○	○	○	○	○	○
Heart Disease	○	○	○	○	○	○	○	○
Hyperlipidemia (excessive fat in blood)	○	○	○	○	○	○	○	○

CONDITIONS	MOTHER	FATHER	*BROTHERS	*SISTERS	UNCLES	AUNTS	GRANDPARENTS	CHILDREN
Hypertension (high blood pressure)	○	○	○	○	○	○	○	○
Jail or Prison	○	○	○	○	○	○	○	○
Kidney Disease	○	○	○	○	○	○	○	○
Liver Cirrhosis	○	○	○	○	○	○	○	○
Manic Depression (Bipolar)	○	○	○	○	○	○	○	○
Mental Retardation	○	○	○	○	○	○	○	○
Migraine or Sick Headaches	○	○	○	○	○	○	○	○
Nerve Diseases (Parkinson's, MS, etc.)	○	○	○	○	○	○	○	○
Obesity (overweight)	○	○	○	○	○	○	○	○
Psychiatric Hospitalization	○	○	○	○	○	○	○	○
Thyroid Disease/Goiter	○	○	○	○	○	○	○	○
Pernicious Anemia	○	○	○	○	○	○	○	○
Psychosis	○	○	○	○	○	○	○	○
Rheumatic Fever	○	○	○	○	○	○	○	○
Schizophrenia	○	○	○	○	○	○	○	○
Sickle Cell Disease	○	○	○	○	○	○	○	○
Stroke	○	○	○	○	○	○	○	○
Suicide Attempt	○	○	○	○	○	○	○	○
Suicide (completed)	○	○	○	○	○	○	○	○
Syphilis	○	○	○	○	○	○	○	○
Tuberculosis (TB)	○	○	○	○	○	○	○	○
Other Glandular Diseases	○	○	○	○	○	○	○	○
Ulcers	○	○	○	○	○	○	○	○
Yellow Jaundice	○	○	○	○	○	○	○	○
Other: _____	○	○	○	○	○	○	○	○

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2. If any of your *blood relatives* have not had ANY of the above conditions or problems, please indicate here:
   - O Mother
   - O Father
   - O Brothers
   - O Sisters
   - O Uncles
   - O Aunts
   - O Grandparents
   - O Children

N. MEDICATION HISTORY

1. What medications are you now taking?

MEDICATION NAME	DOSAGE	HOW LONG HAVE YOU BEEN TAKING THIS MEDICATION?

2. What drugs, medications, or shots are you allergic to?

MEDICATION/DRUG/SHOT NAME	REACTION

O. SOCIAL HISTORY

1. Highest level achieved in school (choose one):
   - O 8th grade or less
   - O Some high school
   - O High school graduate
   - O Trade or technical school
   - O Some college
   - O College graduate
   - O Graduate study
   - O Graduate degree
   - O Post-graduate degree

   Specify highest degree attained:
   - O M.D./D.O.
   - O Ph.D./Psy.D./Ed.D.
   - O Pharm.D.
   - O M.A. or M.S.
   - O B.A. or B.S.
   - O B.S.N.
   - O Other: _____

2. Are you now employed? O Yes O No If No, when were you last employed? _____
3. Current occupation or last work if now unemployed: _____
4. Were you ever in the armed services? O Yes O No
   Years of service (from when to when?) _____ Highest rank achieved _____
5. Have you ever been arrested? O Yes O No

Age(s) when arrested:	Reason(s) for arrest:	Did you spend time in jail?
_____	_____	_____
_____	_____	_____

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ID#: Site:

P. MEDICAL CHECKLIST

Fill in the circle of any of the following that you have experienced during the last four weeks. You should indicate items which are very noticeable to you and not those things which, even if present, are minor.

GENERAL:
- O Severe loss of appetite
- O Severe weakness
- O Fever
- O Chills
- O Heavy sweats
- O Heavy night sweats - bed linens wet
- O Fatigue
- O Sudden change in sleep

SKIN:
- O Itching
- O Easy bruising that represents a change in the way you normally bruise
- O Sores
- O Marked dryness
- O Hair fragile - comes out in comb
- O Hair has become fine and silky
- O Hair has become coarse and brittle

HEAD:
- O Struck on head - knocked out
- O Frequent dizziness that makes you stop your normal activity and lasts at least 5 minutes
- O Headaches that are different from those you normally have
- O Headaches that awaken you
- O Headaches with vomiting

EYES:
- O Pain in your eyes
- O Need new glasses
- O Seeing double
- O Loss of part of your vision
- O Seeing flashing lights or forms
- O Seeing halos around lights

EARS:
- O Pain in your ears
- O Ringing in your ears
- O Change in hearing
- O Room spins around you

NOSE:
- O Bleeding
- O Pain
- O Cannot breathe well
- O Unusual smells

MOUTH:
- O Toothache

Soreness or bleeding of:
- O Lips
- O Tongue
- O Gums

- O Unusual tastes
- O Hoarseness

NECK:
- O Pain
- O Cannot move well
- O Lumps
- O Difficulty swallowing
- O Pain on swallowing

NODES:
- O Swollen or tender lymph nodes (Kernals)

BREASTS:
- O Pain
- O New lumps
- O Discharge from nipples

LUNGS:
- O Pain in chest
- O Pain when you take a deep breath
- O New cough
- O Coughing up blood
- O Green, white, or yellow phlegm
- O Wheezing
- O Short of breath (sudden)
- O Wake up at night - can't catch breath
- O Unable to climb stairs

HEART:
- O Pain behind breastbone
- O Pain behind left nipple
- O Pain on left side of neck or jaw
- O Heart racing
- O Heart thumps and misses beats
- O Short of breath when walking
- O Need 2 or more pillows to sleep
- O Legs and ankles swelling (not with menstrual period)
- O Blue lips/fingers/toes when indoors and warm

GASTRO-INTESTINAL:
- O Have lost all desire to eat
- O Food makes me ill
- O Cannot swallow normally
- O Pain on swallowing
- O Food comes halfway up again
- O Sudden persistent heartburn
- O Pain or discomfort after eating
- O Bloating
- O Sharp, stabbing pains in side or shoulder after eating

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GENITO-URINARY:

- O Stabbing pain in back by lower ribs
- O Urinating much more frequently
- O Sudden awakening at night to urinate
- O Passing much more urine
- O Not making much urine
- O Unable to start to urinate
- O Must go to urinate quickly or afraid of losing urine
- O Pain on urination
- O Wetting yourself
- O Blood in urine
- O Pus in urine

NEUROLOGICAL:

- O Fainting
- O Fits
- O Weakness in arms or legs
- O Change in speech
- O Loss of coordination
- O Sudden periods or onset of confusion
- O Sudden changes in personality (suddenly not the same person)
- O Loss of ability to concentrate
- O Seeing things
- O Loss of touch
- O Tingling in arms or legs
- O Unable to chew properly
- O Memory loss
- O Tremulous or shaky

MALE:

- O Pain in testicles
- O Swelling of testicles
- O Swelling of scrotum

FEMALE:

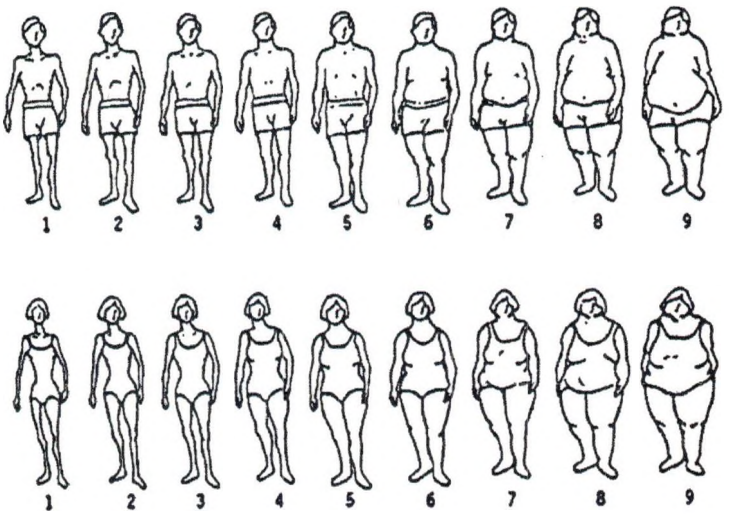
- O Sudden change in periods
- O Between periods bleeding

LIST ANY OTHERS NOT MENTIONED ABOVE:

_____

_____

_____



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APPENDIX 3

EDE-Q4

ID#: ☐☐☐ Site: ☐

INSTRUCTIONS: The following questions are concerned with the PAST FOUR WEEKS ONLY (28 days). Please read each question carefully and fill in the circle which corresponds to 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?	O	O	O	O	O	O	O
2. ...Have you gone for long periods of time (8 hours or more) without eating anything in order to influence your shape or weight?	O	O	O	O	O	O	O
3. ...Have you tried to avoid eating any foods which you like in order to influence your shape or weight?	O	O	O	O	O	O	O
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?	O	O	O	O	O	O	O
5. ...Have you wanted your stomach to be empty?	O	O	O	O	O	O	O
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?	O	O	O	O	O	O	O
7. ...Have you been afraid of losing control over eating?	O	O	O	O	O	O	O
8. ...Have you had episodes of binge-eating?	O	O	O	O	O	O	O
9. ...Have you eaten in secret? (Do not count binges.)	O	O	O	O	O	O	O
10. ...Have you definitely wanted your stomach to be flat?	O	O	O	O	O	O	O
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?	O	O	O	O	O	O	O
12. ...Have you had a definite fear that you might gain weight or become fat?	O	O	O	O	O	O	O
13. ...Have you felt fat?	O	O	O	O	O	O	O
14. ...Have you had a strong desire to lose weight?	O	O	O	O	O	O	O

OVER THE PAST FOUR WEEKS (28 DAYS)

15. On what proportion of times that you have eaten have you felt guilty because the effect on your shape or weight? (Do not count binges.)

O None of the times
O A few of the times
O Less than half the times
O Half the times
O More than half the times
O Most of the time
O 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?

O No O Yes

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? ☐☐☐

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ID#: Site:

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 not eaten an unusually large amount of food given the circumstances?

O No O Yes

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?

O No O Yes

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?

O No O Yes

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?

O No O Yes

26. How many times have you done this over the past four weeks?

27. Have you exercised hard as a means of controlling your shape or weight?

O No O Yes

28. How many times have you done this over the past four weeks?

OVER THE PAST FOUR WEEKS (28 DAYS)...	Not At All		Slightly		Moderately		Markedly
29. ...Has your weight influenced how you think about (judge) yourself as a person?	O	O	O	O	O	O	O
30. ...Has your shape influenced how you think about (judge) yourself as a person?	O	O	O	O	O	O	O
31. ...How much would it upset you if you had to weigh yourself once a week for the next four weeks?	O	O	O	O	O	O	O
32. ...How dissatisfied have you felt about your weight?	O	O	O	O	O	O	O
33. ...How dissatisfied have you felt about your shape?	O	O	O	O	O	O	O
34. ...How concerned have you been about other people seeing you eat?	O	O	O	O	O	O	O
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?	O	O	O	O	O	O	O
36. ...How uncomfortable have you felt about others seeing your body, for example, in communal changing rooms, when swimming or wearing tight clothes?	O	O	O	O	O	O	O

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APPENDIX 4

BED

IDS-SR

STAFF USE ONLY

Study #: 0 1 | Site: | ID#: | Week #:

Date: / /

INSTRUCTIONS: Please fill in the circle of one response to each item that best describes you for the past 7 days.

1. Falling Asleep:
   - O I never take longer than 30 minutes to fall asleep.
   - O I take at least 30 minutes to fall asleep, less than half the time.
   - O I take at least 30 minutes to fall asleep, more than half the time.
   - O I take more than 60 minutes to fall asleep, more than half the time.

2. Sleep During the Night:
   - O I do not wake up at night.
   - O I have a restless, light sleep with a few brief awakenings each night.
   - O I wake up at least once a night, but I go back to sleep easily.
   - O I awaken more than once a night and stay awake for 20 minutes or more, more than half the time.

3. Waking Up Too Early:
   - O Most of the time, I awaken no more than 30 minutes before I need to get up.
   - O More than half the time, I awaken more than 30 minutes before I need to get up.
   - O I almost always awaken at least one hour or so before I need to, but I go back to sleep eventually.
   - O I awaken at least one hour before I need to, and can't go back to sleep.

4. Sleeping Too Much:
   - O I sleep no longer than 7-8 hours/night, without napping during the day.
   - O I sleep no longer than 10 hours in a 24-hour period including naps.
   - O I sleep no longer than 12 hours in a 24-hour period including naps.
   - O I sleep longer than 12 hours in a 24-hour period including naps.

5. Feeling Sad:
   - O I do not feel sad.
   - O I feel sad less than half the time.
   - O I feel sad more than half the time.
   - O I feel sad nearly all of the time.

6. Feeling Irritable:
   - O I do not feel irritable.
   - O I feel irritable less than half the time.
   - O I feel irritable more than half the time.
   - O I feel extremely irritable nearly all of the time.

7. Feeling Anxious or Tense:
   - O I do not feel anxious or tense.
   - O I feel anxious (tense) less than half the time.
   - O I feel anxious (tense) more than half the time.
   - O I feel extremely anxious (tense) nearly all of the time.

8. Response of Your Mood to Good or Desired Events:
   - O My mood brightens to a normal level which lasts for several hours when good events occur.
   - O My mood brightens but I do not feel like my normal self when good events occur.
   - O My mood brightens only somewhat to a rather limited range of desired events.
   - O My mood does not brighten at all, even when very good or desired events occur in my life.

9. Mood in Relation to the Time of Day:
   - O There is no regular relationship between my mood and the time of day.
   - O My mood often relates to the time of day because of environmental events (e.g., being alone, working).
   - O In general, my mood is more related to the time of day than to environmental events.
   - O My mood is clearly and predictably better or worse at a particular time each day.

   9A. Is your mood typically worse in the (fill in one)
   - O morning
   - O afternoon
   - O night?

   9B. Is your mood variation attributed to the environment?
   - O yes O no

10. The Quality of Your Mood:
   - O The mood (internal feelings) that I experience is very much a normal mood.
   - O My mood is sad, but this sadness is pretty much like the sad mood I would feel if someone close to me died or left.
   - O My mood is sad, but this sadness has a rather different quality to it than the sadness I would feel if someone close to me died or left.
   - O My mood is sad, but this sadness is different from the type of sadness associated with grief or loss.

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Site:	ID#:	Week #:

24. Feeling restless:
- O I do not feel restless.
- O I'm often fidgety, wring my hands, or need to shift how I am sitting.
- O I have impulses to move about and am quite restless.
- O At times, I am unable to stay seated and need to pace around.

25. Aches and pains:
- O I don't have any feeling of heaviness in my arms or legs and don't have any aches or pains.
- O Sometimes I get headaches or pains in my stomach, back or joints but these pains are only sometimes present and they don't stop me from doing what I need to do.
- O I have these sorts of pains most of the time.
- O These pains are so bad they force me to stop what I am doing.

26. Other bodily symptoms:
- O I don't have any of these symptoms: heart pounding fast, blurred vision, sweating, hot and cold flashes, chest pain, heart turning over in my chest, ringing in my ears, or shaking.
- O I have some of these symptoms but they are mild and are present only sometimes.
- O I have several of these symptoms and they bother me quite a bit.
- O I have several of these symptoms and when they occur I have to stop doing whatever I am doing.

27. Panic/Phobic symptoms:
- O I have no spells of panic or specific fears (phobia) (such as animals or heights).
- O I have mild panic episodes or fears that do not usually change my behavior or stop me from functioning.
- O I have significant panic episodes or fears that force me to change my behavior but do not stop me from functioning.
- O I have panic episodes at least once a week or severe fears that stop me from carrying on my daily activities.

28. Constipation/Diarrhea:
- O There is no change in my usual bowel habits.
- O I have intermittent constipation or diarrhea which is mild.
- O I have diarrhea or constipation most of the time but it does not interfere with my day-to-day functioning.
- O I have constipation or diarrhea for which I take medicine or which interferes with my day-to-day activities.

29. Interpersonal Sensitivity:
- O I have not felt easily rejected, slighted, criticized or hurt by others at all.
- O I have occasionally felt rejected, slighted, criticized or hurt by others.
- O I have often felt rejected, slighted, criticized or hurt by others, but these feelings have had only slight effects on my relationships or work.
- O I have often felt rejected, slighted, criticized or hurt by others and these feelings have impaired my relationships and work.

30. Leaden Paralysis/Physical Energy:
- O I have not experienced the physical sensation of feeling weighted down and without physical energy.
- O I have occasionally experienced periods of feeling physically weighted down and without physical energy, but without a negative effect on work, school, or activity level.
- O I feel physically weighted down (without physical energy) more than half the time.
- O I feel physically weighted down (without physical energy) most of the time, several hours per day, several days per week.

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