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SHAME AND WOMENS' SELF ORIENTATION: PERCEPTIONS OF DEPENDENCY NEEDS AND CONNECTEDNESS IN BULIMIA NERVOSA AND IN RECOVERY

By

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ABSTRACT

SHAME AND WOMEN'S SELF ORIENTATION: PERCEPTIONS OF DEPENDENCY NEEDS AND CONNECTEDNESS IN BULIMIA NERVOSA AND IN RECOVERY

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Research suggests conflicts related to perceptions of autonomy and dependency are important dynamics underlying bulimia. However, research in these areas is contradictory. Additionally, bulimics' perceptions and ideals regarding dependency needs and self-reliance have been insufficiently explored.

The study addressed two research questions: Do bulimics define themselves and their ideals about relatedness differently than non-eating disordered women or recovered bulimics, and, do bulimics view healthy dependency needs as significantly more shameful than non-eating disordered women and recovered bulimic women? Behaviorally-bulimic (BB), behaviorally-recovered bulimic (BR) and non-eating disordered (NED) womens' real and ideal self orientations were assessed using real and ideal responses to the Relationship Self Inventory (RSI). Subjects' attributed levels of shame (using the Internalized Shame Scale (ISS)) to audiotapes of women who expressed either dependency needs or self-reliance. Subjects' own level of shame was assessed using the ISS.

Subjects' own ISS scores showed a significant declining trend from the BB to the BR to the NED group. Correlations between real RSI scale scores and between RSI scores and subjects' ISS scores showed significant differences between groups. Bulimics' tended to view concepts of autonomy, separateness, and interrelatedness as irreconcilable opposites. The BR groups' responses showed less evidence of this tendency, supporting arguments that an increased ability to integrate concepts of connection and individuation in one's self definition is linked to recovery from bulimia. The BB group's ideal self was

significantly higher on the "Separate Self" RSI scale than the NED group. This runs counter to theories that bulimics over-idealize "feminine" characteristics such as intimacy and dependency (Boskind-Lodahl, 1976; Pettinati, et al., 1987) and supports theories emphasizing over-idealizations of autonomy and self-reliance (i.e. Steiner-Adair, 1986).

The BB group attributed significantly more shame to the woman expressing dependency needs than to the self-reliant woman and attributed significantly more shame to the dependency needs depiction than did either the BR or NED groups. The finding that the BR group's attribution of shame to the individual expressing dependency needs was significantly lower than the BB group suggests that a change in the perception of dependency needs is involved in the recovery process.

For Scott and for Cameron

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

RESEARCH RATIONALE AND RESEARCH QUESTIONS

Bulimia nervosa is a disorder which appears predominantly in females. Prevalence estimates of bulimia and bulimic behavior range from 1-20% of high school and college females, depending on the criteria used (Rand & Kuldau, 1992). Research indicates that at least 90% of bulimics are female (Johnson, Lewis & Hagman, 1984). Reported recovery rates range from 29-71% over a range of 14-72 months (Abraham, Mira, & Llewellyn-Jones, 1983; Keller, Herzog, Lavori, Bradburn, & Mahoney, 1992; Lacey, 1983; Mitchell, Pyle, Hatsukami, Gogg, Glotter, & Harper, 1988; Pope, Judson, Jonas, & Yurgelun-Todd, 1985; Swift, Kalin, Wamboldt, Kaslow, & Ritzholz, 1985). A recent long term follow up study of 30 bulimics revealed that only 69% had recovered after 3 to 3.5 years "despite more than six months of treatment in most cases" (Keller et al, 1992, p. 7).

The empirical literature on bulimia consistently reports bulimics' difficulties with interpersonal relationships and in defining themselves in relation to others (see for example, Boskind-Lodahl, 1976; Dickstein, 1985; Garfinkel & Garner, 1983) and consistently implicates conflicts or difficulties related to autonomy and dependency. Much research has been devoted to dynamics in the bulimic's interpersonal relationships and to issues regarding the bulimic's actual levels of autonomy and dependency (Attie & Brooks-Gunn, 1989; Boskind-Lodahl, 1976; Garfinkel & Garner, 1983; Humphrey, Apple, & Kirschenbaum, 1986; Johnson & Berndt, 1983; Johnson & Maddi, 1986; Pettinati, Franks, Wade, & Kogan, 1987; Steiger, Fraenkel, & Leichner, 1989; Strober & Humphrey, 1987). However, surprisingly little research has focused on the bulimic's perception or ideal conception of interpersonal relationships and interpersonal needs, the meaning that relationships hold for the bulimic, or changes in these perceptions after

recovery from bulimia nervosa (Teusch, 1988; McCreery, 1991). In the relative absence of such research and of consistent findings in these areas, theories implicating the perceptions and ideals of bulimics have been advanced.

Theorists have posited that bulimics experience heightened identification with traditional feminine traits and ideals (Steiger, Fraenkel, & Leichner, 1989; Pettinati, Franks, Wade, & Kogan, 1987). Others argue that the bulimic's self is characterized by gender identity conflict characterized by idealization of masculine attributes or a wish to be male (Rost, Neuhaus, & Florin, 1982) or by the shaming of "feminine" values of care and connection (Steiner-Adair, 1986). Others have theorized that the bulimic has developed a counter-dependent "false-self ideal" in order to avoid the shame she attributes to her real dependency and dependency needs (Jones, 1985).

Effective psychotherapeutic treatment requires an accurate assessment and understanding of the individual's real self, but also an accurate understanding of the individual's perceptions, goals, ideals, and perceived shortcomings. For instance, bulimics consistently display a heightened level of dependency and reveal strong needs to conform and gain approval from others. Researchers and theorists have suggested that treatment approaches should focus attention on strengthening and supporting autonomy and separation and have addressed dependency as a negative construct (for example, Boskind-Lodahl, 1976; Bornstein & Greenberg, 1991; Rost, Neuhaus, & Florin, 1982). However, if high levels of actual dependency coexist with shameful perceptions of normal and necessary dependency needs and with an ideal which exaggerates and restrictively glorifies separateness (as hypothesized in the present study), than such approaches would neglect important dynamics and would be inadequate at best and potentially inappropriate or ineffective.

A more precise understanding of the dynamics underlying bulimia nervosa and recovery from bulimia can lead to the development and/or utilization of more effective

treatment approaches. The present study sought to preliminarily investigate and clarify perceptions of dependency needs and the role interpersonal relationships play in the identity of both female bulimics and recovered bulimics with special attention to feelings of shame. The research questions specifically are : (1)*do bulimics define themselves and their ideals about relatedness differently than non-eating disordered women or recovered bulimics* and (2) *do bulimics view healthy dependency needs as shameful--significantly more shameful than non-eating disordered woman and recovered bulimic women view these needs.*

The study has two components. The first phase of the study was directed at clarifying the bulimic's self orientation and examining differences in self orientation between behaviorally bulimic, non-eating disordered, and behaviorally recovered bulimic women. The present study examined behaviorally bulimic, non-eating disordered and behaviorally recovered bulimic self orientations and reported ideal-self orientations through these individuals' real and ideal responses to the Relationship Self Inventory (RSI). Subjects' levels of internalized shame were also assessed using the Internalized Shame Scale (ISS).

The second component of the study examined behaviorally bulimic, behaviorally recovered bulimic, and non-eating disordered womens' perceptions of interpersonal or dependency needs and self-reliance, specifically the shame attributed to these qualities. In order to attempt to differentiate the shame bulimics' manifest related to bulimic symptomology from the shame they may attribute to the qualities of connection and self-reliance, the study attempted to separate these components by investigating subjects' attributions of shame to non-eating disordered women who reveal interpersonal needs or are depicted as self-reliant. Differences and similarities between groups were examined.

INTRODUCTION AND REVIEW OF THE LITERATURE

Research and theoretical contributions by Chodorow (1978), Gilligan (1982, 1986a, 1986b), and Miller (1986) (among others) have emphasized the significant meanings of relationships and connectedness for women's lives and have argued for the importance of attention to these meanings when attempting to understand the dynamics of female development. The dynamics of connectedness and women's perceptions of relationships should also be considered in efforts to conceptualize deviations in the psychological development of women.

Bulimia nervosa is a disorder which appears predominately in females. Research indicates that at least 90% of bulimics are female (Johnson, Lewis & Hagman, 1984). The empirical literature on bulimia consistently reports bulimics' difficulties with interpersonal relationships and in defining themselves in relation to others (see for example, Boskind-Lodahl, 1976; Dickstein, 1985; Garfinkel & Garner, 1983). Much research has been devoted to dynamics in the bulimic's interpersonal relationships and to issues regarding the bulimic's levels of autonomy and dependency (Attie & Brooks-Gunn, 1989; Boskind-Lodahl, 1976; Garfinkel & Garner, 1983; Humphrey, Apple, & Kirschenbaum, 1986; Johnson & Berndt, 1983; Johnson & Maddi, 1986; Pettinati, Franks, Wade, & Kogan, 1987; Steiger, Fraenkel, & Leichner, 1989; Strober & Humphrey, 1987). However, surprisingly little research has focused on the bulimic's perception of interpersonal relationships and interpersonal needs, the meaning that relationships hold for the bulimic, or changes in these perceptions after recovery from bulimia nervosa (Teusch, 1988; McCreery, 1991). The present study sought to preliminarily investigate perceptions of interpersonal needs and the role interpersonal relationships play in the identity of both

female bulimics and recovered bulimics with special attention to feelings of shame. A comparison was made with non-eating disordered females with the goal of further elucidating the dynamics which underlie bulimia nervosa and which mediate recovery. Prior to outlining the present study, the literature concerning relational needs, women's development, and shame will be reviewed and pertainent research on bulimia nervosa will be discussed.

Relational Needs and Women's Development

Traditionally, many of the major theories of identity development and personality have conceptualized psychological growth as moves toward increased separation, individuation, and self-reliance in which separation is viewed as a necessary precursor for the development of mature identity. Within such frameworks, connection and dependence have commonly been perceived as lack of individuation, as immature, or pathological (see for example Erickson 1963; Freud; Mahler & Furer, 1968). Gilligan (1982, 1986a, 1986b) criticizes theories which emphasize developmental moves out of dependence as failing to validate and grapple with the complexity of the construct. She argues that the construct of dependence is viewed negatively in traditional developmental theories because it is set up in a false dichotomy with independence. According to Gilligan, dependence is really a construct with two polar opposites, independence *and isolation*; the emphasis on independence has led to a neglect of the positive values and meanings of relationship and connection. Increasingly theorists are recognizing that connection, dependence, and values of relationship are integral components of emotional maturity and that the development of the capacity for these characteristics has been largely ignored in developmental theory. Such realizations have led to a variety of efforts to formulate more inclusive and complete theories of human development (Franz & White, 1985; Berlin & Johnson, 1989; Gilligan, 1982, 1986a, 1986b; Stern, 1985; Miller, 1984, 1986; Chodorow, 1974, 1978).

Stern (1985) has reviewed the empirical literature on infant development and concludes that theoretical models which posit development as a singular linear process of separation and individuation are inaccurate. Contrary to the hypothesis that connection results only from a failure at differentiation, he synthesizes compelling evidence that the ability to connect with another is a learned skill derived from deliberate, active efforts on the part of both infant and mother; that the ability to connect is a process of psychic growth, self-differentiation, and affirmation which begins to develop almost from birth. Stern (1985) argues that development involves not only moves towards individuation but also towards relationship. One learns how to be with another, how to share one's self experience and how to be in social relationship with others, beginning in infancy. Experiences of being with another are seen as active acts of integration, through learning to be in relationship a sense of self as individuated or agentic develops. For example, as one learns to be with another, and one learns how one impacts on another, one builds skills at differentiating from the other. The individual sees the self defined in the context of relationship (Stern, 1985).

Nancy Chodorow (1974, 1978) was one of the first to affirm the values of connectedness and relationship in a theory which examines gender differences with regard to these constructs. She argues that male and female identity formation is necessarily a different process because women are largely responsible for early child care (Chodorow, 1974). Feminity tends to be defined through connection and relationship while for males, separation and individuation are critical to gender identity.

Gender identity formation traditionally occurs in the context of an ongoing relationship with the mother. Girls, in their female identification, experience themselves as like their mothers and as more continuous than discontinuous with her. The little girl learns about her own identity through a process of connection and relationship; to be a girl means to be like mother (Chodorow, 1978).

Identity development for boys, by contrast, is a process of differentiation from the mother. The little boy learns that he is male, or "not female." Development for males involves "more empathic individuation and a more defensive firming of experienced ego boundaries" (Chodorow, 1978, pp. 166). Chodorow argues that these sex differences in identity formation lead females to "emerge from this period with a basis for 'empathy' built into their primary definition of self in a way that boys do not . . . .Girls emerge with a stronger basis for experiencing another's needs or feelings as one's own (or of thinking that one is so experiencing another's needs and feelings). . . From very early then, because they are parented by a person of the same gender . . . girls come to experience themselves as less differentiated than boys, as more continuous with and related to the external object-world" (Chodorow, 1978, pp. 167).

Other theorists have also argued that healthy identity development can occur within the context of connection and relatedness to others. These clinicians, theorists and researchers have emphasized relational themes in self development as healthy rather than pathological or immature. Gilligan (1982) has posited two pathways to self definition along with corresponding moral "voices" which develop out of the differing paths. In the first, which she argues is more predominant in males, because males tend to be socialized into roles which value separation and autonomy, the self is defined in separation, and the "justice voice," emphasizing hierarchy, is dominant. Gilligan argues for a second mode of self definition which occurs within a network of relationships in which the self is defined through activities of connection and care for others. This second mode, which Gilligan believes is more predominant in females, because women's socialization tends to emphasize values of connectedness, relatedness, and nurturance, leads to the development of what she labels a "care voice" emphasizing network and the maintenance of connection rather than hierarchy in decision making.

A group of clinicians and researchers at the Stone Center at Wellesley College including Miller (1984, 1986) and Surrey (1984) present a theoretical conceptualization of the "self-in-relation" in an attempt to capture and validate the developmental experience which is grounded in relationships. The self-in-relation is a theoretical understanding of one mode of identity development in which

> "the primary conceptualization of the self is relational, that is, the self is organized and developed in the context of important relationships . . . The notion of the self-in-relation makes an important shift in emphasis from separation to relationship as the basis for self-experience and development. Further, relationship is seen as the basic goal of development; i.e. the deepening capacity for relationship and relational competence. The self-in-relation model assumes that other aspects of self (e.g. creativity, autonomy, assertion) develop within this primary context . . . other aspects of self-development emerge in the context of relationship, and there is no inherent need to disconnect or to sacrifice relationship for self development." (Surrey, 1984, p. 2).

The self-in-relation model emphasizes growth and maturation *within* relationship, "where both or all people involved are encouraged and challenged to maintain connection and to foster, adapt and change with the growth of the other" (Surrey, 1984, p. 8).

The Stone Center writers argue that the self-in-relation is more likely to develop in women due to gender socialization practices, cultural patterns of hierarchical power relations between women and men, and identification processes in early childhood. Through an ongoing collection of working papers, these theoreticians have examined the dynamics of the self-in-relation as they relate to a wide variety of issues and have undertaken a broad reaching theoretical investigation of the meanings of connection and relationship to identity and maturity.

Developmental models which highlight the positive value of connection necessarily complicate and enrich our understandings and theories of human development. Multiple and diverse pathways towards psychological maturity appear to exist, culminating in differing processes of identity and different world views. While many theorists highlight gender differences in developmental pathways and in the development of self, there is no

evidence that such differences are "hard-wired." There are however factors, specifically, traditional sex-role expectations and the inequality of males and females, which impact identity development on all levels, from the most intimate, to the most institutionalized cultural plane.

Societal norms, structures, and values clearly shape development differently for females and males and lead to gender differences in developmental conflicts and goals. An additional dynamic associated with this differential gender socialization involves the relative value placed on traditional gender roles. Miller (1986) has convincingly argued that it is impossible to understand the psychology of women without addressing this component. While nurturance, cooperation, and interrelatedness are integral and necessary to the culture, society extolls and rewards the "virtues" of autonomy and independent achievement (Gilligan, 1982; Miller, 1986; Steiner-Adair, 1986). Miller argues that the role of connectedness in women's development and the degradation of concepts such as dependence in culture and in many psychological theories is inseparably intertwined with women's subordinate position within a hierarchical culture.

In her book, Toward a New Psychology of Women, Miller (1986) argues that much of women's relational ability results from the relegation of the nurturing, caretaking domain to women and the lack of integration of relational values in male experience (Miller, 1986). Values of care and connection lead to the development and refinement of important relational skills which can be important strengths for females. However, the cultural context in which such a relational stance is nurtured is problematic. Women's traditional roles are not esteemed and rewarded by society, nor are values which foster relationship as opposed to autonomy. Miller (1983, 1986) argues that the devaluation of activities of care and relationship, and the relegation of the majority of such tasks to a subordinate group, place constraints on the carriers of these values and activities. The focus on fostering interpersonal connection may not be reciprocal and is less likely to take place within a

context of mutuality and shared empathy. Without mutuality, activites of care and connection easily become one-sided experiences of caretaking. Because caretaking and nurturing are embedded within a hierarchy of power (at the low end), these activities become something one person does for another, a chore, and the tasks, as well as the resulting psychological characteristics, are trivialized and not highly valued, either by the individual, or by society (Miller, 1986).

This lack of validation can be a significant factor in women's development and life experience. The devaluation of "what one is" or of one's most central values is the equivalent of shaming. The experience of shame appears to develop as an important dynamic in some women's perceptions of interpersonal needs and of their own identity.

Shame, disconnection, and interpersonal failures

While some have focused on validating and explicating the role of relationships in human development, equally important are both an exploration of how dependence and connectedness are interpersonally and institutionally devalued and the resultant impact of this denigration and disregard.

Internal perceptions and judgments about the self are linked to cultural expectations and values. Such values are transmitted overtly and covertly in the most intimate of relationships as well as at a broad cultural level. Connectedness, the desire to be in relationship, and the capacity for intimacy are integral to the mature psychological development of both males and females; their neglect and lack of validation in our culture as well as in clinical and developmental theory has been to the detriment of both sexes. However, in the face of this lack of validation, these capacities and values have been encouraged differentially by gender.

The widely cited Broverman study (Broverman et. al., 1972) elucidates the dilemma that this situation creates. In the study, clinicians were asked to provide the psychological attributes of either a mature, healthy, socially competent "male", "female" or

"adult." While there emerged no significant differences between standards for healthy males and for healthy adults, the characterizations of a healthy female and a healthy adult were significantly different. Healthy females were defined in line with traditional gender stereotypes and were assigned "feminine" characteristics that were not deemed "healthy" in a mature "adult." The study provides empirical documentation of the identity paradox women may face. To be "female" may be judged differently than to be a mature "adult". Women's experience and socialization is different from men's experience. However, because accepted "adult" norms appear to be generalizations of male experience, women's authentic portrayal of themselves is still very likely to be judged as less than ideal.

Steiner-Adair (1986) argues that females are socialized towards values and behaviors of care and connectedness and then encounter a dilemma when faced with the reality that this culture does not value those traits, but extolls the "virtues" of autonomy and independent achievement. Such social processes create a developmental conflict for females which is difficult to resolve and which often leads to sacrifices in self-esteem, self-confidence, and even the denial of one's own experience. This conflict is exacerbated by the importance placed on sustaining relationship for many females, and the related fear or discomfort which may be associated with separation from relationship or losing a relationship by not accomodating to societal demands(Bernardez-Bonesatti, 1978; Gilligan, 1982; Jordan, 1990; Miller, 1986).

Gilligan (1989) has presented evidence that in adolescence, many females begin to lose confidence in their own ideas and perceptions. They begin to doubt their own experience and values and become more hesitant about bringing their personal truths into relationships with others. Gilligan speaks of a "life-threatening split between female and adult" referring to the disparity between girls' own perspectives and perceptions and a societal view which denigrates values of care and dependence. She believes such societal tensions may throw young girls into serious conflict between their own values and those of

society (Gilligan, 1986b). Steiner-Adair (1986) labels this experience a "developmental double-bind;" females are socialized to be one way and then learn that society places value on something else.

If young women are unable to successfully negotiate this developmental dilemma, it is possible that shameful perceptions of the self may develop (or be reinforced). Steiner-Adair (1986) has argued that young females who are unable to integrate their own values of relationship in formulating their ideals are at increased risk for eating disorders. Others have also related shameful perceptions of the self and related conflicts over separation and connectedness with eating disturbances (Kaufman, 1992, Wurmser, 1981, Gilligan 1986b). Theories of shame and shame-based disorders will be outlined and shame-based conceptualizations of bulimia will be reviewed.

Although theorists differ in their understanding of the dynamics underlying shame, their descriptions of the phenomonomlogical experience of conscious shame is fairly consistent. The feeling of shame is an acutely painful affective experience involving feelings of inadequacy, inferiority, and exposure (before the self or an other). Laing (1960) has referred to shame as "an implosion of the self." Lewis' description is representative:

> "The body gestures and attitude include head bowed, eyes closed, body curved in on itself, making the person as small as possible. At the same time that it seeks to disappear, the self may be dealing with an excess of autonomic stimulation, blushing or sweating or diffuse rage, experienced as a 'flood' of sensations. Shame is thus regarded by adults as a primitive reaction, in which body functions have gone out of control. It is regarded as an irrational reaction for this reason also... Shame is a relatively wordless state. The experience of shame often occurs in the form of imagery, of looking or being looked at. Shame may also be played out in imagery of an internal auditory colloquy, in which the whole self is condemned by the 'other'" (Lewis, 1971, p. 37).

Conceptualizations of the dynamics of shame have developed from two major theoretical systems: Tomkins' affect theory, and applications and reformulations of psychoanalytic theory.

Affect Theory

Tomkins' (1963, 1987) theory of affect conceptualizes the affects as an innate system, the primary motivational force in human beings, separate from the innate drives. Affects are understood as a system of amplifiers which direct attention to the individual's needs as indicated by physiological data inputs.

> ". . . affects are sets of muscular, glandular, and skin receptor responses located in the face (and also widely distributed throughout the body) that generate sensory feedback to a system that finds them either inherently "acceptable" or "unacceptable." These organized sets of responses are triggered at subcortical centers where specific "programs" for each distinct affect are stored, programs that are innately endowed and have been genetically inherited. They are capable, when activated, of simultaneously capturing such widely distributed structures as the face, the heart, and the endocrine glands and imposing on them a specific pattern of correlated responses. One does not learn to be afraid or to cry or to startle, any more than one learns to feel pain or to gasp for air" (Tomkins, 1987 p. 137).

There are nine innate affects, interest-excitement, enjoyment-joy, surprise-startle, distress-anguish, fear-terror, anger-rage, shame-humiliation, dissmell (the innate smell response to bad odors), and disgust, (Tomkins, 1987).

While affect is located in subcortical centers in the brain, the primary site of action of the affect system is the face. Each innate affect is involved with groups of voluntary muscles which are temporarily taken over by an affect as it emerges, creating a prototypical facial response for each of the nine affects. The shame response is characterized by hanging the head, lowering or averting the eyes, and blushing. According to Tomkins (1987), what is viewed and understood as facial display of emotion is actually an "inward feed" of information from the face to conscious awareness. Affect is primarily facial behavior. As the developing individual becomes aware of these facial responses, she becomes aware of her affects. Originally, psychological processes do not create affect. Affect is innately activated by stimulation of specific receptors or the pattern of stimulation. The density of neural firing along with its profile over time determines which affect will be innately triggered.

Tomkins conceptualizes shame as an auxiliary affect, meaning that it requires the presence of another affect, specifically interest or enjoyment. According to Tomkins (1963, 1987), the incomplete reduction of interest or joy by some barrier activates shame. Nathanson (1987) uses the term "proto-shame" to describe the infantile experience of shame. According to Nathanson, this proto-shame has no meaning, it is simply an innate reaction to the rapid but partial reduction of positive affect. Later, the infant "learns" to use these innate facial expressions for voluntary expression as well. In addition, over time, shame becomes associated with input from interpersonal interactions, as life experience adds to the original physiological experience of shame.

Kaufman (1989, 1992) has expanded Tomkins' original formulation of shame and provides a detailed explanation of the processes involved in the creation of a shame-based identity. While classical Freudians posit libidinal and aggressive drives as the sources of human motivation, and interpersonally-oriented theorists understand components of the interpersonal relationship as the primary motivating force, affect theorists view affect as the fundamental source of human motivation. Affect is viewed by both Kaufman (1989, 1992) and Tomkins (1963, 1979, 1987) as distinct from drives and also from the need for relationship. According to Kaufman (1989) it is affect which serves as the primary motivator.

> "It is affect that gives texture to experience, urgency to drives, satisfaction to relationships, and motivating power to purposes envisioned in the future. The affect system and the drive system are distinct, interrelated motivators. They empower and direct both behavior and personality, but the drives must borrow their power from affect. . ." (Kaufman, 1989 p. 61).

Affect is an amplifier of all experience, including needs, drives, cognition, memory, or even other affects (Tomkins 1963, 1987). When any of these is amplified by affect, that affect can then become attached to the need, drive, cognition, memory or experience. According to Kaufman (1989) individuals internalize their experience through imagery. Scenes are internalized images that have become infused with affect. Scenes, imprinted

with affect, are stored in memory and become the foundations of personality (Kaufman, 1989).

When an affect, drive or interpersonal need is followed by shaming, shame scenes are created. According to Kaufman (1989), if a particular drive, affect, or need becomes linked with shame, an internalized connection (shame-bind) to that affect, need, or drive will be established. The creation of shame binds means that recurrences of that affect, need or drive will now spontaneously activate shame by reactivating the entire scene. Because the shame-bound need, drive, or affect, is now experienced with shame, its expression will be constricted, further restricting the expression of self.

Psychological magnification of scenes occurs when one affect-laden scene becomes fused with a scene amplified by the identical affect (Kaufman, 1989; Tomkins, 1979); when multiple affects about the same scene are combined; or through the combination of multiple sources of shame about the same scene (Tomkins, 1987). Families of scenes are created in this way. Patterns of action, called scripts, are then created as a means of anticipating or controlling a magnified group of scenes. In the case of shame-bound scenes, scripts serve the defensive purpose of protecting the individual from experiencing further shame. As additional shame binds are created, magnification takes place and shame increases its power and control over the self.

Psychoanalytic Theories

A distinct group of shame theories is rooted in psychoanalytic theory. In these particular theories, both physiological drives and interpersonal needs supercede the importance of affect as a motivating force. Freud conceptualized shame as a reaction formation against libidinal impulses and as a defense against curiosity and self-exposure (exhibitionism) (Freud, 1933; 1953). Other psychoanalytic theorists have greatly augmented the shame literature, conceptualizing the dynamics of shame and addressing with greater specificity the developing context of shame, interpersonal experience.

Lewis (1971, 1987a, 1987c) understands shame as a state of self-devaluation, "a lapse from the ego-ideal" (Lewis, 1971, p. 37) which is experienced vicariously as the negative evaluation by an other. According to Lewis, shame is a super-ego function; the "affective-cognitive signal to the self that its basic affectional ties are threatened" (Lewis, 1987c p. 114). Shame is originally caused by a failure of a central attachment bond. It necessarily develops out of relationships with others. The development of shame requires a relationship between the self and an other where one cares about the other's evaluation.

Wurmser's (1981) conceptualization of shame is similar. He believes that a failure to meet the standards of internalized objects results in shame. Wurmser (1981) emphasizes the power of early or archaic internalized shame over later "realistic" or external shame. Although our culture often equates shame with sexual exposure, he argues that shame also involves the broader experience of weakness or failure. To be weak or dirty or defective in one's own eyes is to be ashamed. To be ashamed, ultimately is to feel unlovable.

> "In a sense love at its peak means being as fully accepted as is humanly possible in the wish for enriching self-expression and in the desire to be gloriously and abidingly fascinated and impressed--and to have reciprocity in this on uncounted levels of communication and attentiveness. Shame is the defeat of such love . . ." (Wurmser, 1981, p. 166).

Wurmser posits that shame involves two modes of exposure. One is embarrassed when one is revealed and also when one is caught viewing someone else's exhibitionism. Looking and being looked at can both be shameful.

> "Perceptual-expressive interaction is the zone cardinally important for the development and the core of our identity. Only in seeing and being seen, in hearing and being heard, can we match our self-concept with the concept others have of us. The modes of attentive, curious grasping . . . and of expressing oneself in nonverbal as well as verbal communication are the arena where, in love and hatred, in mastery and defeat, our self is forged and molded. If this interchange is blocked and warped, the core of the self-concept is severely and permanently disturbed, twisted, deformed. . .The consequence of such an interference is that expectations and reality never seem to fit: 'The real (experienced) self of me never matches what 'they' expect, nor do 'they' ever match what I expect" (Wurmser, 1981, p. 163).

Wurmser (1981) argues that much of severe psychopathology is based on often disguised shame conflicts, and is set up to undo, and at the same time perpetuate, the shame traumas that have created a profound sense of unloveability.

Morrison (1984, 1987, 1989) has written about shame within a self psychology or Kohutian framework. Morrison views shame as an affect of central importance which reflects feelings of inferiority, defect, and failure of the self.

> "Shame reflects decreased self-esteem--a manifestation of the self's sense of failure with respect to goals and ideals, its deficits with respect to early insufficient functions of its selfobjects" (Morrison, 1987 p. 289).

The phenomenological withdrawal experienced with shame is not only from external objects; it is also a withdrawal from a negative or despairing self awareness. This self-awareness is rooted in internalized "selfobjects" which reflect the empathic quality of early relationships.

Although they differ in conceptions of how this occurs, both affect theorists and psychoanalytic theorists agree that interpersonal factors are integral to the linkage of shame to behavior and to identity. Where Kaufman discusses the binding of innate shame to interpersonal needs, and the creation of shame binds through the reactions of others, Lewis, Wurmser, and Morrison, view shame as created and internalized within the context of interpersonal relationships.

Shame-based Disorders

Shame is a powerful affect experienced as exposure before either self or others. The association of shame with identity, with interpersonal experience, with drives, or with other affects can lead to inhibited expression in an effort to avoid the painful experience of shame. The personality can thus be profoundly affected. Shame theorists have posited preliminary reconceptualizations of psychopathology, integrating the concept of shame with the development of psychological disorders. Three theorists have specifically formulated shame-based conceptualizations of bulimia nervosa. The theories of Kaufman, Wurmser,

and Lewis will be reviewed. They are notably different, reflecting their disparate understandings of human motivation and development. Winnicott's related construct of a false self will also be presented.

According to Kaufman (1989), repeated association of shame with interpersonal needs, with hunger or sexual drives, or with other affects may lead to the development of "shame syndromes" governed by central internalized shame scenes. These shame syndromes are "constellations of affect, scene, and script" (Kaufman, 1989 p. 153). There are distinct shame syndromes, shaped by the nature of the scenes and the shame-binds, which involve characteristic patterns of reproducing shame and further distorting the self. The scripts or rules that an individual develops over time to predict, control, respond to, and interpret a set of scenes magnified by affect further solidifies the individual's response to these scenes (Kaufman, 1989; Tomkins, 1979, 1987). While Kaufman (1989) does not believe all psychopathology to be founded in shame, he argues that shame scenes and scripts are central to the development of affective, narcissistic, borderline, compulsive, addictive, and eating disorders.

Kaufman (1989, 1992) argues that bulimia nervosa is a shame-based disorder. According to Kaufman, both bingeing and purging are, in part, substitutions for more shameful interpersonal needs. Bingeing on food is a substitute for interpersonal needs which have become bound with shame through repeated association. Bingeing on food takes the place of fulfilling the need for others, which is perceived by the bulimic as a cause for shame. Purging is a futile and symbolic attempt by the bulimic to rid herself of the shame she feels, both for the bingeing behavior, and as a result of the unavoidable experience of interpersonal needs.

Kaufman (1989) delineates seven interpersonal needs, the fulfillment of which are necessary for the optimal development of the individual: 1) the need for touching and holding, 2) the need for identification, the phenomenological experience of merging with

another, 3) the need to be in relationship with another, 4) the need for affirmation, 5) the need to nurture, 6) the need for power, and 7) the need for differentiation, embracing separateness and autonomy. The first four needs involve an aspect of submission to or dependency on relationship. The need to nurture others and the need for power involve some aspect of control over relationship, and the need for differentiation, encompassing separateness and autonomy, indicates the need to be separate from a relationship. According to Kaufman, the fulfillment of these needs is critical to the healthy development of the individual. To the extent that any or all of these needs are linked with the experience of shame, optimal development is inhibited.

Bingeing, of course, does not adequately fulfill the individual's shame-bound needs for others. The continued need for the other, combined with the secondary shame associated with uncontrolled eating, serves to perpetuate and extend the bingeing behavior. Shame is displaced from the self onto the act of bingeing. Purging, however, involves the additional affect of disgust, which, like shame, is an auxiliary affect, according to Tomkins (1987). Disgust becomes associated with the hunger drive, perhaps due to family and cultural expectations of perfection, thinness and control over eating.

For Kaufman, the concept of affect magnification (Tomkins, 1963) is central to understanding the binge-purge cycle. According to Tomkins (1963), affect magnification is a process whereby an individual overwhelms herself with shame, bringing shame to peak intensity. At this point, the affect is so intensified that it "erupts" or "explodes" and is automatically reduced. Kaufman (1989) uses the descriptive metaphor of cleansing oneself emotionally by bathing in shame; through the process of total humiliation and spending the built up shame, the bulimic is purified or cleansed. Kaufman argues that the process of purging not only rids the bulimic of food, but temporarily of shame as well. Bingeing increases the build up of shame and then purging rapidly magnifies it. Shame and disgust peak and then there occurs a "bursting effect" which leaves the bulimic feeling purged,

purified of shame. The shame, of course, is not eliminated entirely, and the cycle eventually begins again. In addition, bulimia itself creates additional shame, leading to increased isolation, which creates increased needs for interpersonal contact, further perpetuating the cycle.

Wurmser's (1981) very different understanding of the role of shame in psychopathology and the involvement of shame in disordered eating never-the-less echoes similar themes. Wurmser posits a shame syndrome as well, a continuum of neurotic to psychotic behavior which includes varying degrees of four major symptoms, depersonalization, eating disturbances (which include anorexic behavior as well as bulimic binges), depression, and delusionally intense feelings of shameful exposure and rejection. This shame syndrome originates in early conflicts over the desire for dependency and symbiotic merging with the other and an intense desire for autonomy. In these individuals, emotional intimacy has become equated with intrusiveness and loss of control; the desire for autonomy, fueled by fears of total rejection, humiliation, or exposure ("shame anxiety") provides a safe haven, but results in painful isolation.

Wurmser (1981) maintains that orality and eating often play a central role in the shame-based personality. Eating may be used as a tie to reality in order to counteract overwhelming fears and wishes for symbiotic merging. The oral realm provides a concrete arena for enacting the conflict between taking in and expelling; between allowing intrusion (or intruding) and alternately maintaining isolating control (or spitting out and rejecting the other). Wurmser believes looking and eating can be tools for power and destruction. He also argues that both are highly libidinized. Merging, through witnessing the other's exposure, is frightening and according to Wurmser, the visual conflict is transferred to an oral binge in an effort to regain power. From Wurmser's perspective, eating binges are shameful and are kept secret because they lead to strong guilt feelings. This guilt is related to the destructiveness of one's oral impulses, to shame, to disgust with the oral gratification

itself, and to the weakness deemed inherent in the dependency on oral gratification. Bingeing is shame-laden but that shame is used as a defense against the more severe shame over wishes for emotional intimacy and dependency. In this way bingeing behavior both guards against and perpetuates shame.

> "... eating merely adds to 'the black vomit inside me' and to the fecal masses, 'to this through and through filthy nature of mine' thus swelling further the sense of shame. Eating is taking in from and of another and this is intrusion--but a controlled one, one actively performed, not passively suffered; yet in its symbolic equation with the other, it needs to be rejected. .. beyond eating, an even more general dilemma appears. To be close means to be intruded upon and swallowed up by the other--clearly and insupportably a humiliating monument to one's weakness. Distance, on the contrary, means rejection and disdain: 'I am treated like the heap of trash I really am'--which once again is crushingly shameful" (Wurmser, 1981, p. 215).

Lewis (1987a, 1987c) believes that neurotic symptomology or behavior is frequently the result of the conscious attempt to maintain and repair lost affectionate bonds. The failure of a central attachment bond results in shame. This shame as well as the painful experience of losing an attachment because one has not been able to live up to the standards of an admired internalized image evokes rage, what Lewis calls "shame-rage" or "humiliated-fury". Shame-based rage is turned against the self, out of fear of losing the valued other. Lewis (1987d) believes that because of societal norms, women are predisposed to internalize humiliated fury or shame rage. In writing about the greater frequency of depression in women she articulates a familiar conflict:

> "The biological and cultural expectation that they will be mothers makes it appear natural that they should spend their lives devoted to others--husband and children. But our society also scorns people who are not self-sufficient and independent of others. Women thus learn early that they should be ashamed of the very set of qualities which are particularly theirs. Ironically, at the same time, they are constantly threatened by the prospect that if they are not affectionate enough and as close and loving to others as they ought to be, they will have failed in their own and others' eyes. They are ashamed of themselves if they are close to others and guilty and ashamed of themselves if they are not. Within this profound conflict, the chances for throttled humiliated fury are great. Any disturbance in their relationship to others ... can throw her into a state of unconscious fury at the way her self has been torn. But at whom is she furious--herself or the beloved, admired

> other with whom she is so close. This is the same confusion she faced when first she experienced rivalrous hatred of her mother. Then, also, it was hard to separate the hatred of herself from the hatred of her first caretaker, in emulation of whom her self had been developed. In adulthood, humiliated fury is deflected by women from the 'other' who is its 'unjust' target, back upon the self" (Lewis, 1987d, p. 247).

Lewis (cited in Teusch, 1988) understands bulimia as one means of directing the rage toward one's self. Bingeing on food becomes a means to direct the hostility against one's self, in order to protect others from the rage. Purging acts as a means of cleansing or removing the bad feelings. Bingeing and purging are self-destructive rageful acts which also serve to enhance the "false self", in order to meet external demands that were at some point imposed by others. Attention to the "false self" masks the rage, while at the same time, it eases shame about the self (Lewis, 1987a).

The reaction to shame is the impulse or wish to hide and the desire to avoid experiencing the affect (Kaufman, 1992. Wurmser). Winnicott's (1965) "false self" construct describes one means by which this may occur. Winnicott views the true self as the spontaneous self that exists in the infant. Ignoring or reacting inappropriately to the spontaneity of the true self is the equivalent of shaming (Morrison, 1987). According to Winnicott, the false self is an exaggeration of the public face or image one extends to the external world in an effort to protect the true self. If the true self is sufficiently shamed, then the false self can become overdeveloped, and can become the internalized sense of self, masking the true self (Winnicott, 1965).

Bulimia

Shame theorists and others have posited that excessive shame, specifically shame related to conflicts over separation and connection, is the underlying basis for the development of bulimia nervosa in women. The research on bulimic women and their development is extensive. Several important areas of this research appear to reflect the involvement of shame and conflicts over separation and connectedness in the development of bulimia nervosa. The research on bulimic communication patterns and on the bulimic's

approach to and perception of interpersonal needs and of feelings will be reviewed and the research investigating the role of cultural values in the development of eating disorders will be presented.

Dysfunctional Communication

Much of the research involving the families of bulimics has focused on communication patterns within the family. Families of bulimics show several dysfunctional features fairly consistently. Humphrey and her colleagues (1986) compared the interpersonal behaviors of 16 bulimic families to non-bulimic family controls in a problem solving role play situation. Researchers were able to blindly differentiate bulimic families from non-bulimic family controls based on family communication patterns (Humphrey, Apple, & Kirschenbaum, 1986). Through the use of complex observation-rating systems, they found that parents of bulimics had a tendency to use "double-bind" communications which presented contradictory directives. Bulimics' responses to self-report measures have revealed indirect family communication styles (Johnson & Flach, 1985). Bulimics and their mothers have both indicated that their families approach conflict indirectly, and that conflict tends to be elevated in these families (Attie & Brooks-Gunn, 1989; Johnson & Flach, 1985; Strober & Humphrey, 1987). These families have been described as more disparaging and hostile (Humphrey et al., 1986; Strober & Humphrey, 1987), more walled off, less cohesive, disengaged and at the same time more enmeshed (Humphrey et al., 1986; Johnson & Flach, 1985; Strober & Humphrey, 1987), less helpful or supportive (Humphrey et al., 1986; Johnson & Flach, 1985), less nurturing or trusting (Humphrey et al., 1986; Strober & Humphrey, 1987), and less expressive (Johnson & Flach, 1985). Humphrey and Stern (1988) argue impressively for the importance of an "integrative" analysis of the dynamics involved in bulimia. They present a comprehensive theoretical conceptualization which stresses both individual intrapsychic dynamics and the dynamics at the level of the family system.

Shame theorists also argue that shame is an intergenerational phenomenon; the sense of shame about shame and the tendency, both at the level of the individual and the level of culture to deny, cover up or avoid shame leads to its perpetuation in both individuals and families (Fossum & Mason, 1986; Kaufman, 1989, 1992; Wurmser, 1981). Fossum and Mason (1986) have proposed a set of characterisitics and rules which they believe characterize families dominated by shame. Dysfunctional coping in these families results from the repeated denial of the shame. Through lack of direct acknowledgment, the shame is perpetuated. Fossum and Mason believe that family scripts and rules are developed which reflect the shame in these families and the strong needs to avoid and deny it. According to Fossum and Mason (1986) the script of a shame-based family demands rigid control over all behavior and interaction, perfectionism--more aptly defined as perfect adherence to a very vaguely defined external image--and the use of blame to cover shame over instances of lack of control or imperfect outcome. Other "rules" include the denial of feelings that are negative or that signal a need for nurturance or need for an other; the use of unreliability, incompleteness and lack of resolution to avoid facing issues that might arouse shame; a taboo about talking about behavior that is shameful; and the use of denial or disqualification to reframe and thus deny any occurrences of shameful or abusive or compulsive behavior (Fossum & Mason, 1986).

The studies presented support the adherence of bulimic families to such "shame scripts". Bulimic families appear to lack the skills or ability to communicate honestly and directly. It can be posited that the parents in these families are suffering from their own shame. This shame, and fears of acknowledging it, leads to severely dysfunctional communication ploys, invoked as a means of protection from painful affect. These communication tactics may have been learned in their own childhood and would appear to be a primary method by which shame is perpetuated intergenerationally. Shame-based

families fail to provide experiences which allow their members to learn and practice assertive behavior and effective coping skills.

Bulimics certainly appear to be lacking in these areas. Cattanach and Rodin (1988) reviewed the literature on the role of psychosocial stress and bulimia. They found that while the stressors these women report are relatively normative, bulimic women tend to use passive, and less effective strategies for dealing with stress. They suggest that bingeing and purging eventually become the primary coping mechanisms for these women when they are confronted with stress, as a way of managing feelings, or when the environment seems chaotic and beyond their control.

Denial of Needs and Feelings

Difficulties in handling the conflicting needs of autonomy and dependence have been discussed in the shame literature as a manifestation of shame (Fossum & Mason, 1986; Kaufman, 1989; Wurmser, 1981). Fossum and Mason (1986) believe that placing an exaggerated priority on independence coupled with devaluing or denying needs for nurturance and help (because neediness is viewed as shameful) leads to the inhibition of a mature self. They argue that individuals or families who overvalue autonomy never learn to create balance between the needs to be individual and differentiated and the need to be in relationship with others. When the need to be independent is overly stressed, the development of the self is stunted because of the continual need to deny natural (but shame-bound) needs for dependency on and relationship with other human beings.

Bulimic women appear to have great difficulty dealing with issues surrounding autonomy and identity. Bulimics are reported to have an external locus of control and to display a related sense of personal ineffectiveness (Dickstein, 1985; Johnson & Maddi, 1986). They are described as feeling helpless and somewhat out of control in relation to their bodily experiences (Johnson & Maddi, 1986). Bulimics have been reported to display

strong needs to conform and gain approval from others and to be very sensitive to rejection (Boskind-Lodahl, 1976; Garfinkel & Garner, 1983).

Bulimic families offer little support for autonomy (Attie & Brooks-Gunn, 1989). Family communication research emphasizes the lack of supportiveness or nurturance and failure to encourage self-sufficient, assertive behavior in these families. These dynamics can certainly be linked with the bulimic's feelings of ineffectiveness, need for approval, and overall difficulties in coping with stressful situations. Johnson and Flach (1985) report that bulimic families tend to have high standards of performance, but at the same time place a low emphasis on social and intellectual activities that might serve to foster that achievement. Perfectionism is expected, while at the same time the family does not support independent, assertive, or expressive behaviors. In addition, such a double-bind leads to a no-win shame situation in which the individual is shamed for being dependent and yet is left ashamed of her inability to be independent because she lacks the skills and support in this endeavor.

Referring to Winnicott's (1965) false self construct, Jones (1985) theorized that the bulimic's shame over her need for others is so intense that she creates an exaggerated false self, a false self which emphasizes pseudo-independence and pseudo-achievement. The false self, instead of the true self, is internalized and the submergence of the true self is posited to lead to the bulimic's feelings of emptiness, ineffectiveness, unrealness and shame (Johnson & Maddi, 1986; Jones, 1985). In this way shame cycles or spirals, leading to adaptations that only increase and further perpetuate shame.

The research literature on bulimia reflects these individuals' difficulties with interpersonal relationships and in defining themselves in relation to other people. Bulimics suffer from disrupted social relationships and increased isolation (Johnson & Berndt, 1983). Bulimics have been reported to display significantly greater fears of intimacy than non-bulimics (Pruitt, Kappius & Gorman, 1992). These women reportedly have great

difficulty dealing with time spent alone (Cullari & Redmon cited in Cattanach & Rodin, 1988) and display strong needs to conform and gain social approval (Boskind-Lodahl, 1976; Garfinkel & Garner, 1983).

Perfectionism and Cultural Values

Bulimic families emphasize perfectionistic standards of behavior and achievement (Attie & Brooks-Gunn, 1989) and bulimics tend to be perfectionists with high expectations for themselves (Boskind-White and White, 1983; Garfinkel & Garner, 1983). In addition, these women display strong needs to conform and to gain approval from others (Boskind-Lodahl, 1976; Garfinkel & Garner, 1983). Such needs for approval may lead to behavioral and even personality changes aimed at garnering positive evaluations from others.

It has been posited that lack of support for and shaming of the true self can drive the true self underground and encourage the development of a false self, built around external ideals (Winnicott, 1965). The characteristics of the false self are related to those qualities one wishes to present to the environment, the false self is a mask, a public face that one believes is more likely to gain social approval than the true self. Characteristics of the false self may be reflected in the values of the family and the culture. Cultural attitudes about weight, body, and appearance, interpersonal needs and gender roles can result in shaming on an interpersonal or societal level.

Theorists argue that changes in cultural ideals regarding the female body have led to increased body shame and an increase in eating disorders. Studies reveal that over the last few decades, the "ideal woman" has become slimmer; even Playboy centerfolds have become thinner and more angular over the last 20 years. Miss America contestants show declining weight as well (Garner, Garfinkel, Schwartz, & Thompson, 1980). Silverstein, Perdue, Peterson, and Kelly (1986) provide convincing evidence that the media promotes and perpetuates standards of thinness for women. As the ideal body becomes thinner and

lighter, statistics reveal that young women are growing heavier, further widening the "shame gap" between cultural ideals and reality (Garner & Garfinkel, 1980).

Theorists have also posited that cultural values and expectations regarding gender roles must be considered in developing an understanding of bulimia and of the bulimic's conflict regarding autonomy and dependence. Some research has found evidence of increased adherence to traditional female gender roles among bulimics, with the traditional role characterized by "dependence and passivity" (Boskind-White & White, 1986; Steiger, Fraenkel, & Leichner, 1989; Pettinati, Franks, Wade, & Kogan, 1987). Silverstein, Perdue, Wolf, and Pizzolo (1988) reported that eating disorders appeared to be particularly prevalent among women who reported that their parents held negative attitudes toward female achievement.

Insufficient research has focused on elucidating the perceptions and ideals of the bulimics themselves. Pettinati, Franks, Wade, and Kogan (1987) had 37 eating disordered patients complete the Bem Sex-role Inventory twice, with self and ideal-self ratings. They reported that this group rated their ideal selves significantly higher on feminine ratings and concluded that eating disordered women over-idealized feminine traits. Paxton and Sculthorpe (1991) assessed attitudes about sex role characteristics in a slightly different manner, arguing that any relationship between sex role characteristics and disordered eating would be obscured if a discrimination was not made between positive and negative traits. In their study, the researchers differentiated between positive and negative masculine and feminine characteristics. For example, "gentle" was considered a positive feminine characteristic while "weak" was defined as a negative feminine characteristic. The authors found that the more eating disordered the individual, the fewer positive masculine attributes she attributed to her self and the more negative feminine characteristics were attributed. Although the authors investigated ideal-self perceptions as well, and report a

discrepency between real and ideal, the data provided do not provide a clear picture of the ideal characteristics reported by the subjects.

Rost, Neuhaus, and Florin (1982) report that bulimic women scored significantly higher than non-bulimic women on a scale of "sex-role fatalism." Silverstein, Carpman, Perlick, and Perdue (1990) report that women who exhibited gender identity conflict, (defined by drawing an androgynous figure on the Draw-a-person Test or by reporting wishing they had been born male) were more likely than other women to report frequent bingeing or purging. They hypothesize that bulimia may be related to women's struggles to define themselves in areas historically associated with male achievement.

Steiner-Adair (1986) theorizes that eating disorders are the result of a cultural overemphasis on autonomy which is unhealthy and unrealistic, and a culture-wide shaming of females. She argues that females are acculturated to view themselves in relationship with others and yet are shamed for these values; instead they are taught to value the traits for which male children are generally socialized, namely, independence and autonomy. In other words, women are taught to be one thing and then told to be something else. Within a culture which values "male" tendencies, females shame themselves and are continually shamed by others.

Using clinical interviews and diagnostic measures with a group of 32 adolescents, Steiner-Adair (1986) was able to almost perfectly differentiate a subgroup of females who scored in the disordered eating range on the Eating Attitudes Test, an objective self-report instrument designed to assess a broad range of eating disordered behavior. This subgroup identified cultural ideals of autonomy and success in defining a "superwoman" and did not separate societal ideals from their own values in describing what they believed the ideal woman to be. They appeared to understand needing or interdependence with others as shameful. Females who were able to recognize the "superwoman" image and the emphasis on autonomy as a product of culture, but who included the value of interdependence in their

own goals, did not score as eating disordered. Steiner-Adair's (1986) important discovery that women with disordered eating could be distinguished from a larger group, solely on the basis of their depiction of the ideal woman, merits further exploration.

The varied research on cultural values as they relate to bulimia reflects the dynamic of shame at several different levels. There is some evidence that bulimia is more prevalent among certain cultural groups, namely women from middle or upper-class families (Shisslak, Crago, Neal, & Swain, 1987), suggesting that groups which espouse certain values (high achievement, thinness, perfection and autonomy) and shame others may be at increased risk. Preliminary evidence indicates that the strength of one's ties to the "mainstream," Caucasian American culture is related to one's risk for developing an eating disorder (Pumariega, 1986), strengthening the evidence for a cultural link to this disorder.

Bulimics' Perceptions of Their Disorder

While theorists are continually reformulating their understanding of the etiology of bulimia, there has been little direct investigation into the bulimic's own perception of her disorder. Preliminary work in this area strikingly supports etiological theories involving shame, especially as it relates to interpersonal neeeds.

Teusch (1988) interviewed 40 bulimic women in an attempt to understand how they make sense of their symptoms. Subjects most often chose shame and guilt, over depression, positive feelings, anxiety, or anger to describe their affective experience of bulimia. One hundred percent of the sample attributed factors about themselves to the development of their bulimia. Family factors were mentioned by 50 percent of the group in this regard. Parental emphasis on food, weight, and diet was a prominent theme, but within this context it was the lack of nurturance and connection with their parents that these women felt was problematic. Approximately one half of the women felt that their "interpersonal beliefs" had contributed to the development of bulimia, and 82 percent mentioned specific interpersonal experiences when discussing the development of their

eating disorder. When these women discussed their interpersonal beliefs, Teusch reports that feelings of emotional isolation and disconnection were prevalent, as were negative (or shaming) interpersonal experiences.

The motives given for bingeing and purging revealed conscious attempts by these women to satisfy needs independently of others and to cope with feelings of shame, rage, and anxiety that result from the continued repression of wishes and needs and also from emotional isolation. Needs for nurturance and concomitant inabilities to ask for or receive nurturance were reported.

Though it did not set out to investigate either shame or bulimics' perceptions of interpersonal needs, this study clearly supports their relevance to bulimia nervosa. These bulimic women reported conflicts over needs for dependence on others, an inability to directly express feelings involving nurturance or neediness, a disruption of family relationships, issues involving food and body, and intense personal shame about the self, factors which have been reported elsewhere as well. It is important to note that Teusch (1988) found no relationship between these womens' degree of insightfulness and treatment history, making less likely the argument that these women had had their "motivations" explained to them in therapy.

In an earlier study, McCreery (1991) compared bulimics and non-bulimics on the dimensions of shame, and real and ideal levels of "emotional reliance on another person" and autonomy. Bulimics reported a significantly higher level of shame than non-bulimics. They also reported significantly more emotional reliance on another person. While there was not a significant difference between groups in the ideal level of emotional reliance on another person, the bulimic group reported a significantly higher ideal level of autonomy.

This study further investigated bulimic and non-bulimic perceptions of interpersonal needs involving dependency, specifically shameful perceptions. Subjects listened to three short audiotaped "interviews." Each interview depicted a confident, healthy, well

functioning female college student. The tapes differed in the main character's approach to interpersonal needs. One was autonomous and self-reliant; one displayed and was accepting of interpersonal needs; and the third served as a control--her stance toward interpersonal needs was not clearly defined.

Subjects were asked to complete a measure of shame as they thought the character would respond. Strikingly, both groups attributed significantly more shame to the individual who displayed interpersonal needs, with the difference between groups being one of extreme. The bulimic group attributed significantly higher levels of shame to the interpersonal needs characterization, perceiving this individual as experiencing above average levels of shame. The study lends emphasis to the importance of considering shame, particularly shame related to perceptions of dependency and autonomy, in the dynamics of bulimia nervosa.

Shame, especially shame related to interpersonal needs, clearly appears to be woven throughout the bulimic experience. Research consistently supports the shame-based nature of bulimia, both the shame rooted in the individual and her family and the cultural shame which works to enforce societal ideals by shaping the standards of individuals and families. Shame theory is a valuable addition to our knowledge of the development of bulimia nervosa and appears to offer a comprehensive and accurate understanding of the dynamics involved in this disorder. While preliminary conceptualizations of bulimia as a shame-based disorder appear to make sense, further research must seek to clarify and document the relationship between the two.

Physiological Considerations in Bulimia Nervosa

Bulimia nervosa involves both physical and psychological symptoms. In treating the disorder one must be cognizant of possible physical sequalae; in one study of eating disordered females, twenty-two percent of the bulimics required hospitalization for medical reasons (Palla & Litt, 1988). Menstrual irregularities, especially in bulimics with a history

of anorexia, are frequently noted (Herzog & Copeland, 1985). Gastric dilation and rupture may result from binge eating (Herzog & Copeland, 1985). Bulimics who vomit or abuse laxatives or diuretics are at significant risk of hypokalemia (abnormally low potassium levels) which predisposes them towards cardiac arrythmias and renal damage (Agras, 1987; Herzog & Copeland, 1985; Palla & Litt, 1988). The repeated use of Ipacec to induce vomitting can lead to Ipacec poisoning and, in rare cases, to fatal myocardial dysfunction (Adler, Walinsky, Krall, & Cho, 1980). Other possible complications related to vomitting include dental cavities and enamel erosion, swelling of the parotid glands, and esophageal tearing and bleeding (Agras, 1987; Herzog & Copeland, 1985; Palla & Litt, 1988).

Additionally, bulimic behaviors of bingeing and purging trigger physiological sequalae which can potentially impact both psychological functioning and eating behaviors. Severe dieting and weight loss, although most often discussed in relation to anorexia nervosa, may impact the functioning of some bulimics and may exacerbate bulimia. Keys et. al. (1950) described the psychological changes which occurred in response to starvation in a group of male volunteers. When subjects' weight dropped below 85-90% of what their average weight should be, researchers noted intense preoccupations with food, episodes of binge eating, obsessive thinking and behavior, and an inability to recognize satiation.

Two important physiological reactions to bulimia are believed to fuel the cycle of bulimic behavior by exacerbating disregulation in food intake and storage: (1) hyperinsulinism and (2) hypokalemia. When the bulimic binges, insulin is released from the pancreas. Purging leaves the bulimic with no food in her system but with elevated levels of insulin. Insulin arrouses the appetite even when the stomach is full (Haskew & Adams, 1989). Insulin also works to promote the movement of glucose into cells for storage as fat, leading, potentially, to a slower metabolism (and an increased tendency to gain weight) and to depleted glucose levels (Haskew & Adams, 1989). Vomiting, laxative,

and diuretic abuse all result in depleted levels of potassium (hypokalemia). Decreased potassium levels and low blood sugar may also lead to increased appetite--triggering another binge (Potes-Park & Bokram, 1989). There is some evidence that bulimics eventually develop hyperinsulism, secreting insulin when they see, smell or think about food (Haskew & Adams, 1989). This hyperinsulinism further interferes with food intake regulation and may also impact energy level and mood Haskew & Adams, 1989). The cycle hypothesized to result from and be exacerbated by bulimia is illustrated in figure 1.

Significant research attention has centered on better elucidating the pathophysiological mechanisms which play a role in (and may in fact exacerbate) bulimia nervosa. One major focus has been on examining the endocrinologic changes (and resultant physiological mechanisms) brought about by bingeing, purging, and dieting behaviors (see for example McBride, Anderson, Khart, Sunday & Halmi, 1991; Pirke, Friess, Kellner, Krieg, & Fichter, 1994; Pugliese & Lifshitz, 1985; Weltzin, et. al., 1991). While a discussion of this research is beyond the scope of the present study, a much more comprehensive discussion of the physiological issues and dynamics involved in bulimia nervosa is presented by Pirke and his colleagues (Pirke & Vandereycken, 1988).

Research Objectives and Hypotheses

Researchers have established that bulimic women often come from families who are less accepting of interpersonal needs and who emphasize perfectionistic standards. Bulimics consistently display a heightened level of dependency and reveal strong needs to conform and gain approval from others. The research reviewed suggests the involvement of gender identity issues in bulimia, specifically difficulties related to autonomy and dependency. However, the research in these areas is far from definitive and is at times contradictory. In addition, the perceptions of bulimics themselves, specifically, their perceptions and ideal conceptions regarding interpersonal or dependency needs and the need to be autonomous or self-reliant have been insufficiently explored. Effective

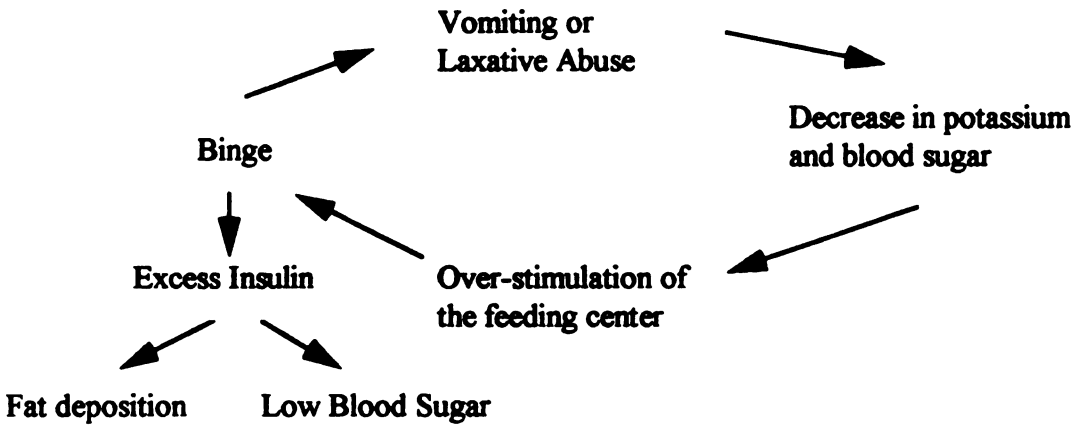

Figure 1: Physiological Vicious Cycle (Potes-Park & Bokram, 1989)

psychotherapeutic treatment requires an accurate assessment and understanding of the individual's real self, but also an accurate understanding of the individual's goals, ideals, and perceived shortcomings.

The present study has two components. The first phase of the study is directed at clarifying the bulimic's self orientation. Theorists have posited that bulimics experience heightened identification with traditional feminine traits and ideals (Boskind-White & White, 1986; Steiger, Fraenkel, & Leichner, 1989; Pettinati, Franks, Wade, & Kogan, 1987). Others have argued that the bulimic's self is characterized by gender identity conflict characterized by idealization of masculine attributes or a wish to be male (Rost, Neuhaus, & Florin, 1982) or by the shaming of "feminine" values of care and connection (Steiner-Adair, 1986). Others have theorized that the bulimic has developed a counter-dependent or pseudo-autonomous "false-self ideal" in order to avoid the shame she attributes to her real dependency and dependency needs (Jones, 1985; McCreery, 1991). The present study examines bulimics' self orientation and bulimics' ideal self orientation through their real and ideal responses to the Relationship Self Inventory (RSI).

The second component of the study investigated bulimic, recovered bulimic, and non-eating disordered individuals' perceptions of interpersonal needs and self reliance, specifically the shame these individuals may link to these qualities. It is important to differentiate the shame bulimics manifest related to their bulimic symptomology and to their feelings about themselves from the shame they may attribute to the qualities of connection and self-reliance. Therefore, the study will attempt to separate these components by investigating bulimic, recovered bulimic, and non-eating disordered individuals' attributions of shame (ISS scores) to non-eating disordered women who reveal interpersonal needs or are depicted as autonomous and self-reliant. In addition, differences and similarities between groups will be examined.

It is hypothesized that the bulimic is indeed conflicted regarding dependency needs and autonomy and attributes significant shame to her experience of interpersonal needs. While the bulimic characteristically displays heightened levels of dependency, it is argued that her feelings of shame extend beyond her sometimes pathological dependence. It is hypothesized that the bulimic finds all interpersonal needs shameful, even when the interpersonal needs are normal and nonpathological and are displayed in a non-eating disordered, confident, and successful woman. It is suggested that the bulimic's intense shame over interpersonal needs and her need to attempt to avoid these shame feelings, leads to the attempted denial of her own dependency needs and to attempts to gratify them indirectly by bingeing or "taking in" food, a substitute for nurturance. Purging represents an undoing, or a cleansing. The entire bulimic cycle serves as a concrete manifestation of the bulimic's conflict related to interpersonal needs. Therefore, it is further hypothesized that successful recovery from bulimia nervosa involves not simply a change in eating patterns, but a change in the perception of dependency needs and an increased acceptance of personal needs and desires for connection with others.

This argument runs counter to the proposition that the bulimic over-idealizes traditionally feminine characteristics such as dependency. It is posited that the bulimic's intense shame of interpersonal or dependency needs leads her to construct a counter-dependent or pseudo-autonomous "false self ideal." While her own intense dependency needs preclude her from achieving this pseudo-autonomy, this ideal should be evident in her concepualization of the ideal female.

Because this hypothesized formulation links shameful perceptions of dependency needs to bulimia, it follows that recovered bulimics should approximate non-bulimics in their perceptions of dependency needs and in their approximation of the ideal female. It would be expected that recovered bulimics and non-eating disordered females, as opposed

to bulimics, would place less emphasis on separation and autonomy and would be more accepting of connection and relationship in their conception of the ideal.

The following hypotheses follow from this formulation:

Phase One

1. The behaviorally-bulimic group will report significantly higher levels of internalized shame (as measured by responses on the ISS) than either the behaviorally recovered or non-eating disordered groups.

2. There will be no significant differences between the behaviorally recovered-bulimic and non-eating disordered groups on the ISS.

3. It is hypothesized, that under the "ideal" response set, the behaviorally bulimic group will score significantly higher on the Separate Self scale of the RSI than either of the two other groups.

4. It is predicted that there will be no significant difference between behaviorally recovered and non-eating disordered groups on their scores on the Ideal RSI.

5. It is hypothesized that there will be no differences between behaviorally recovered and non-eating disordered scores on the "real" RSI.

6. The behaviorally bulimic group's "real" RSI responses are difficult to predict. Because research consistently reports bulimics' pathological levels of dependence, it is likely that these women will show elevated Connected Self and especially Primacy of Other Care scores. However, their hypothesized shame and conflictual feelings related to dependency needs appear to result in an emphasis on self-reliance and isolation. It is hypothesized that bulimics are extremely conflicted in their expressions of connection and separation and that their pattern of scores on the RSI will reflect this conflict and will differ from the scores of the other two groups. The Separate Self and Connected Self are negatively correlated in the normative female sample ($r = -.23$) and the Separate Self and Primacy of Other scales show a very low correlation ($r = .09$) (Pearson et al., 1991) . It is hypothesized that the

behaviorally bulimic group's pattern of scores will not approximate this relationship; bulimics will score most highly on the Primacy of Others and the Separate Self scales, reflecting their high levels of dependence, their extreme discomfort with this dependence and their attempts to avert it. While the exploratory nature of this research precludes a confident hypothesis related to the relationship between the Separate Self and Connected Self scores for the bulimic sample, it is quite possible that the negative correlation obtained in the normative female sample may not be replicated.

Phase Two

In a previous study (McCreery, 1991), a group of women reporting bulimic behaviors attributed significantly higher levels of shame to a non-eating disordered woman who displayed dependency needs than to a woman depicted as self-reliant. Additionally the bulimic-type group attributed a significantly higher level of shame to the woman displaying dependency needs than did a group of non-eating disordered women. It is hypothesized that these results will be replicated in the present study. Three additional hypotheses follow from this assumption:

7. The behaviorally bulimic group will attribute significantly higher levels of shame to the woman expressing dependency needs than to the woman expressing self-reliance.
8. The behaviorally bulimic group will attribute significantly higher levels of shame to the woman expressing dependency needs than will the non-eating disordered or the behaviorally recovered-bulimic groups.
9. The level of shame attributed to interpersonal needs across groups will be positively correlated with the individuals' level of bingeing and purging.

Overview of Design

The study is a two step design. In the first phase, 680 female undergraduates completed the Internalized Shame Scale (ISS), two subscales of the Eating Disorders Inventory (EDI), a demographic questionnaire, a questionnaire about eating habits and

behaviors, and two versions of the Relationship Self Inventory (RSI), one version requesting them to answer as they would respond, and one as they would respond if they were their ideal self. Subjects for the second phase of the experiment were selected from this subject pool on the basis of their responses to the eating habits questionnaire and the EDI scales. Twenty-three behaviorally bulimic (BB), twenty-five non-eating disordered (NED), and thirty behaviorally recovered-bulimic women (BR) were identified.

In the second phase of the experiment, three audiotaped characterizations were presented to each of those identified subjects who agreed to return. One tape depicts a woman who is autonomous and nonreliant; one depicts a woman who displays and is accepting of interpersonal needs for touching and holding, affirmation, identification, and the need to be in relationship with another; and the third depicts a control situation in which neither style is clearly discernable. Subjects listened to each tape and then completed the ISS as they believed the woman they heard would respond. Group responses to each vignette were compared both within and across groups.

METHOD

Subjects

It was deemed important that this study not simply investigate differences in beliefs and perceptions between a clinical group (i.e. bulimics identified by their participation in some treatment group) and nonclinical populations, or that any significant differences between groups merely reflect the treatment ideology of a given eating disorders treatment. Additionally, this study sought to avoid examining a restricted sample of bulimics by using a clinical group or by advertising for "bulimics willing to participate in psychological research," thereby restricting the generalizability of any findings[1]. In order to avoid these limitations, the undergraduate psychology subject pool at a large midwestern university was used as the subject source for all subjects. Subjects signed up to participate in a study on "Female Personality." Although this method narrowed the generalizeability of the data to college students, the sampling of subjects in this manner more closely approximates a random sample than may be achieved through the solicitation of subjects in more direct manners. Subjects were informed at the time they signed up for partipation that they might be recontacted and asked to complete a second phase of the experiment.

Six hundred-eighty undergraduate females participating in the subject pool (as an option to earn extra class credit) were screened in the first phase of the experiment. Subjects were chosen for inclusion in the second phase of the study based on their responses to a structured self-report insturment which was a modified version of the Eating

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[1] Research suggests that studies identified as "eating disorders research" discourage the participation of some eating disordered subjects (Beglin & Fairburn, 1992). It is not known if these non-participants represent a distinct subgroup different from other bulimics.

Table 1: DSM III-R Diagnostic Criteria for Bulimia Nervosa

A. Recurrent episodes of binge eating (rapid consumption of a large amount of food in a discrete period of time).

B. A feeling of lack of control over eating behavior during the eating binges.

C. The person regularly engages in either self-induced vomiting, use of laxatives or diuretics; strict dieting or fasting, or vigorous exercise in order to prevent weight gain.

D. A minimum average of two binge eating episodes a week for at least three months

E. Persistent overconcern with body shape and weight.

Disorders Inventory Symptom Checklist (EDI-SC). The DSM III-R diagnostic criteria for bulimia nervosa are listed in Table 1. Behavioral criteria--recurrent binge eating and purging over a three month period (criteria A, C, and D)--were assessed directly by subject's self report. Subjects who reported recurrent episodes of binge eating (at least two episodes a week for at least three months), who engaged in either vomiting, laxative or diuretic use, fasting or vigorous exercise[1] on a regular basis (twice a month or more) were included in the "behaviorally bulimic group" (BB). Subjects who reported that they met these behavioral criteria in the past but had not met this criteria in the last four months were included in the "behaviorally recovered-bulimic group" (BR). Two of the DSM III-R diagnostic criteria for bulimia nervosa are more subjective to assess: "A feeling of lack of control over eating behavior during the eating binges" (criterion B) and "Persistent overconcern with body shape and weight" (criterion E). Scores from two subscales of the Eating Disorders Inventory, "Drive for Thinness" and "Bulimia," were used to assess the severity of these dynamics. However, these scores were not used to group subjects. Subjects who reported no history of bingeing or purging behaviors and who reported an ideal weight of no more than five pounds below or above their present weight were scored in random order. The first 25 females whose scale scores on both "Drive for Thinness" and "Bulimia" ranked below the 50th percentile (scores of two or less and zero respectively) and who agreed to return for further participation comprised the non-eating disordered group (NED).

Measures

The complete assessment battery (both pre-screening and the measures used as responses to the vignettes) is included as Appendix D.

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[1]Vigorous exercise was included as a criterion only when the subject reported that exercise was engaged in specifically to "burn off or 'get rid of' large quantities of food you ate (binges)."

Eating Disorders Inventory (EDI)

The EDI is a self-rating scale designed to assess the psychological characteristics relevant to anorexia nervosa and bulimia nervosa. Scores on the subscales of the EDI have been found to be predictive of clinician's ratings and diagnoses (Garner, Olmstead & Polivy, 1983). The two scales used in this study were "Drive for Thinness" (DT), an indicator of "concern with dieting, preoccupation with weight, and entrenchment in the extreme pursuit of thinness" (Garner, et al., 1983), and "Bulimia" (B), which "indicates the tendency toward episodes of uncontrollable overeating (Bingeing) and may be followed by the impulse to engage in self-induced vomiting" (Garner et al., 1983). The individual items are listed in Table 2. Further validity and reliability data are available (Garner et al., 1983).

Subjects also completed a self-report questionnaire designed to assess the presence and history of bulimic behaviors. This questionnaire consisted of some diagnostic items from the EDI symptom checklist (EDI-SC) (Garner, 1990) as well as additional items created by the author.

Internalized Shame Scale (ISS)

The ISS consists of 30 items which subjects rate on a five point scale. It is designed to measure the level of internalized shame.

> "Internalized shame, as it is defined operationally by a 'high score' on the ISS, essentially results from the frequent triggering of shame in circumstances or situations that intensify or magnify the shame feelings, with a corresponding diminishment of sustained experiences of interest or enjoyment . . . The constellation of feelings triggered by shame are those associated with incompetence, inferiority, defectiveness, unworthiness, threats of exposure, emptiness, alienation, and self-contempt, among others. . . The items are couched in language that reflects a high degree of negative affect intensity, specifically associated with cognitions about the self, reflective of the feelings noted above. Thus the shame items on the ISS are a sample of the most internally consistent statements that tap into this central sense of incompetence or inferiority that represents the core of the shame experience." (Cook, 1993, p. 18-19).

Table 2: Eating Disorders Inventory: Drive For Thinness and Bulimia Subscale Items

Drive For Thinness Subscale Items
1. I eat sweets and carbohydrates without feeling nervous
2. I think about dieting.
3. I feel extremely guilty after overeating.
4. I am terrified of gaining weight.
5. I exaggerate or magnify the importance of weight.
6. I am preoccupied with the desire to be thinner.
7. If I gain a pound, I worry that I will keep gaining.

Bulimia Subscale Items
1. I eat when I am upset
2. I stuff myself with food.
3. I have gone on eating binges where I felt that I could not stop.
4. I think about bingeing (overeating).
5. I eat moderately in front of others and stuff myself when they're gone.
6. I have the thought of trying to vomit in order to lose weight.
7. I eat or drink in secrecy.

Items are scored on a six point Likert-type scale of "always," "usually," "often," "sometimes," "rarely," or "never." In scoring, responses are weighted from zero to three, with three being the strongest or most symptomatic response. The three choices opposite in direction to the symptomatic response are scored as zero.

The ISS has two scales, self- esteem and internalized shame. Alpha reliability in a non-clinical college sample was reported to be .94 for the shame scale and .88 for the self-esteem scale. Test-retest reliability coefficients at a seven week interval were .84 for the shame scale and .69 for self esteem. The six self-esteem items balance the direction in which items are scored to reduce the possibility of response set bias. Further validation data is available (Cook, 1993).

Relationship Self Inventory (RSI)

The Relationship Self Inventory (RSI) was designed to assess self orientation as discussed by Gilligan and the Stone Center group (among others), differentiating individuals who define themselves in separation and those who define themselves in connection (Pearson, et al., 1991). While these two self orientations certainly overlap and coexist, the RSI is designed to assess the centrality of these different means of self definition to the organization of the self.

A self-report instrument, the RSI is made up of four scales, Connected Self (CS), in which relations with others are most central to one's self definition; Separate Self (SS), in which independence, separation, autonomy and justice are central for self definition; and two scales assessing different manifestations of CS, Primacy of Other Care (POC), in which caring for the needs of others, frequently at one's own expense, is a core self-theme; and Self and Other Care (SOC), in which care of the self is integrated with care of others. The authors report internal consistencies of .77 for Separate Self, .76 for Connected Self, .68 for Primacy of Other Care, and .78 for Self and Other Care in female populations (Pearson, et al., 1991).

The four scales have demonstrated external validity and appear to measure meaningful and distinct constructs (Pearson, et al., 1991). The CS scale shows significant low to moderate positive correlations with sociability ($r = .36$), nurturance ($r = .17$), and communion ($r = .17$) in female populations. The SS scale shows significant low

correlations with autonomy (r = .24), and low negative correlations with nurturance (r = -.23), sociability (r = -.21), and communion (r = -.15). The constructs of Connected and Separate Self appear to be related to but distinct from nurturance, autonomy, agency, communion, and sociability. Further information on the development and validation of the RSI is available (Pearson, et al., 1991).

Taped Vignettes

Subjects selected for participation heard three audiotaped vignettes presented as "portions of interviews with female college students." In actuality, the "interviews" were written by the experimenter and recorded by three graduate students. The three interviewees each present a different attitude towards interpersonal relationships. One tape depicts a woman who is autonomous and self-reliant. The woman in the second tape displays an interpersonal style characterized by mutual dependence on others and interpersonal needs as conceptualized by Kaufman (1989), namely, the need for touching and holding, the need for identification, the need to be in relationship, and the need for affirmation. The third interviewee serves as a control; here expressions of autonomy are balanced by expressions of interpersonal needs. The three women depicted on the audiotapes all present themselves as happy with their lives. All report confidence in their academic life and satisfaction with their interpersonal relationships. All three women report that they have a boyfriend. Transcripts of the vignettes are included as Appendix B.

A pilot study was conducted in order to determine whether the tapes reliably present the hypothesized values towards relationships and whether raters reliably assess the tapes as differing along these hypothesized dimensions. Twenty-one undergraduate females participating in the Psychology Research Pool served as subjects in the pilot study. Subjects listened to each tape and then completed a questionnaire consisting of eight items requiring a "true" or "false" response (see Appendix C). The eight items (completed for each tape) assess the presence or absence of autonomy and interpersonal needs ,

specifically, the need for touching and holding, the need for identification, the need to be in relationship, and the need for affirmation.

Individual items were scored either one or zero. A total score of eight indicated the definite presence of the interpersonal needs for relationship, for identification, for touching and holding, and for affirmation. A cumulative score of zero indicated the absence of these needs in that particular vignette. Statistics of the subjects' ratings of the three tapes are presented in Table 3.

All subjects rated the tape depicting interpersonal needs with a score of six or above (86% rated it with the most extreme score of eight). All rating scores of the tape depicting the absence of interpersonal needs were two or less (86% of the ratings were either zero or one). In addition, the majority of subjects (90.5%) rated all vignettes in the order hypothesized--the tape depicting interpersonal needs received the highest score, followed by the control tape, with the tape depicting the absence of interpersonal needs scoring lowest overall. The two pilot study subjects who did not show this pattern scored the two extreme tapes in the desired direction but gave the control tape an overall score identical to the tape depicting no interpersonal needs (in neither case was this score zero). Finally, a repeated measures analysis of variance revealed a significant difference in the ratings between tapes ($F = 216.81$, $p<.001$).

Procedure

In the first phase of the experiment, 680 female undergraduates completed the Internalized Shame Scale (ISS). This group also completed the Relationship Self Inventory (RSI) two times, from two different perspectives; first, as they perceive themselves, and second, as they would respond if they were their "ideal" self. Demographic information was collected from subjects including age, marital status, parents' marital status, estimated family income, religion, ethnicity, history of psychotherapy or treatment for eating

Table 3: Pilot Study: Subject Means

	Tape 1 (Self-Reliant)	Tape 2 (Expresses Interpersonal Needs)	Tape 3 (Control)
N	21	21	21
Mean	0.667	7.810	4.000
Minimum	0.000	6.000	1.000
Maximum	2.000	8.000	7.000
Standard Deviation	0.730	0.512	1.612

disorders, and the use of psychotropic medications. Subjects additionally completed a questionaire which uses DSM III-R criteria to diagnose bulimia nervosa including portions of the Eating Disorders Inventory Symptom Checklist (EDI-SC). All subjects were asked about past eating disorders and past eating behavior and information on weight and eating style was collected. Finally, all subjects completed two scales of the Eating Disorders Inventory (EDI), "Drive for Thinness" (DT) and "Bulimia" (B)[1].

Subjects selected for participation in the second phase of the study (based on their classification as behaviorally bulimic, non-eating disordered, or behaviorally recovered-bulimic) were contacted and offered additional course credit to return. They were informed that additional participation was voluntary. Returning subjects completed the second phase of the experiment in an individual setting to protect confidentiality. The experiment was administered by undergraduate research assistants. Subjects were seated at a desk and provided with headphones and a tape recorder. They were given the following instructions:

> "Today I am going to ask you to listen to several very short tapes. The tapes contain portions of interviews with female college students. Please listen carefully to each tape. Try to form an idea of what you think the woman you are listening to is like. After listening to a tape I will ask you to respond to a short questionnaire in the way you think the woman you heard would respond. The answers to the questions are not necessarily in the tapes. What we are interested in are your opinions about the woman, the impressions that are formed from the short tape you hear of her."

After answering any questions, subjects were provided with one of the audiotaped interviews. The tapes were presented in random order.

After listening to each tape, the subject was asked to complete a copy of the Internalized Shame Scale (ISS). The instructions to the scale were altered slightly. Instead of responding to the scale in terms of themselves, subjects were asked to assess how well

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[1]Materials pertaining to the diagnosis of eating disorders were provided at the end of the screening battery in order to avoid the effects of any secondary shame (or other response set) on the other measures.

each statement characterized the individual on the tape. After finishing the scale, the procedure was repeated with the remaining tapes.

Upon completion of the experiment, participants were debriefed. They were informed that the initial screening was used to identify women with a range of attitudes about their bodies and with different eating habits. Subjects were provided with referral information related to any concerns they might have about their own eating or body issues.

Ethical Issues

Anonymity/Confidentiality

Several steps were taken to ensure subjects' confidentiality and anonymity. Subjects were assigned a code number by the primary experimenter and the subjects' responses were identified only by that code. Subjects' names were stored in a secure place separate from the code-identifed data and accessible only to the primary experimenter. This information was destroyed after data was collected.

Subjects who were selected for participation in the second phase of the experiment were contacted by the primary experimenter only. No other persons had access to names or phone numbers of the subjects. Research assistants who participated in the second phase of data collection were not informed of the criteria used to select returning subjects. Additionally, research assistants did not have access to the subject's previous responses. The subject's responses in the second phase of the experiment were identified only by code number.

Risks and Benefits of the Study

Students were asked to report on their eating behaviors, on possible eating disorders, and on their history of psychological and psychiatric treatment. Procedures described to protect the confidentiality and anonymity of the participant help to minimize the discomfort this may have caused. The experiment was run by undergraduate research assistants given specific training in the importance of confidentiality. These research

assistants were not informed of the criteria for subject selection. The subjects themselves were informed in the consent agreement of their right to discontinue participation at any time and subjects selected for continued participation were informed (verbally and in writing) that their continued participation was completely voluntary.

Benefits to the individual participants in this study were limited to the course credit they received, the experience they gained from participating, and any personal insights they may have gained from completing the experiment. It is possible, that answering such detailed questions about one's eating patterns might heighten an individual's awareness about eating problems or disorders. At no time were subjects' eating behaviors labeled for them in any way. However, a handout listing resources for individuals who feel dissatisfied with their eating behaviors was provided to participants in the final phase of the experiment. Subjects were also informed in the consent agreement that the experimenter or her advisor was available to discuss any concerns related to the experimental procedure or content. No such contacts were made.

The potential benefits of this study are primarily to the field of psychology and to society. The purpose of the study was to elucidate the perceptions, values, and self orientation of bulimics and to gain information on changes in these areas that may or may not occur with recovery from bulimia nervosa. An improved understanding of differences between bulimics, non-bulimics, and recovered bulimics, as well as an understanding of any unrealistic or inaccurate perceptions and ideals bulimics may have about interpersonal relationships will aid in improving the focus and effectiveness of the treatment of bulimia nervosa.

Consent Procedures

Consent was obtained from subjects in both phases of the experiment; the screening stage (Phase I), and the formal study itself (Phase II). Subjects were given consent forms after being presented with a brief oral introduction to the research. After

their participation in each portion of the study they were given an informational sheet outlining the purpose of that phase of the experiment. This form included the names of individuals they might contact for further information. Consent forms and informational sheets are included as Appendix E.

RESULTS

Demographic Data

Six hundred eighty undergraduate females were screened for participation in the study. Subjects ranged in age from 16-24 years (mean = 18.64, SD = 1.07). The sample was 84.1 percent Caucasian (n = 572), 7.9 percent African American (n = 54), 1.8 percent Latin American (n = 12), 0.4 percent Native American (n = 3), and 4.1 percent Asian (n = 28). Eleven individuals (1.6 percent) identified themselves as "other." Six hundred seventy-four (99.0 percent) of the individuals screened were unmarried (one was divorced, one was widowed). Five subjects (0.7%) were currently married (one subject did not respond to the item on marital status).

Means and standard deviations of EDI subscale scores for the pre-screened sample are reported in Table 4. Quetelet's Body Mass Index (BMI), a method of standardizing body weight across heights, was calculated for all subjects' reported real and ideal weights as kg/m(m) (BMI and IDEAL BMI). The difference between real and ideal BMIs was also calculated for each subject (REAL-IDEAL BMI). Summaries of this data are also presented in Table 4.

Two hundred-eight of the individuals screened (30.6 percent) report that they have been in some type of psychotherapy or counseling (mean number of sessions = 28.15, SD = 56.62) and 3.7 percent (n = 25) report having received some type of psychotherapy or counseling for an eating disorder. Further descriptive information on the prescreened sample is presented in Appendix F.

From the original subject pool, 23 subjects (3.38 percent) met the criteria for inclusion in the behaviorally bulimic group (BB); 30 subjects (4.41 percent) met the criteria

Table 4: EDI scale scores and reported BMI scores for the pre-screened sample

Variable	Mean	SD	Minimum	Maximum	N
BULIMIA (EDI)	2.16	3.42	0.00	21.00	679
DFT (EDI)	7.75	7.10	0.00	21.00	679
BMI	21.82	3.19	16.18	45.48	677
IDEAL BMI	19.98	1.83	15.08	31.00	667
REAL-IDEAL BMI	1.86	2.20	-4.61	26.26	667

for inclusion in the behaviorally recovered bulimic group (BR). The first 25 subjects who met the criteria for inclusion in the non-eating disordered group (NED) were also selected for participation in the experiment. Subject ages ranged from 17-20 years (mean = 18.48) in the BB group, 18-22 years in the BR group (mean = 18.67), and 17-22 years in the NED group (mean = 18.56). A one-way analysis of variance (alpha = .05) showed no significant age difference between groups ($F = .231$ (2, 75), $p = 0.794$). Group means and standard deviations for reported BMI, Real-Ideal BMI, Bulimia and Drive for Thinness (DFT) scale scores, and bingeing and purging behaviors of the BB and BR groups are reported in Table 5.

A one-way analysis of variance revealed a significant difference between groups in BMI (F (2, 74) = 10.046, $p < .001$), Real - Ideal BMI (F (2, 74) = 10.932, $p < .001$), but not reported Ideal BMI (F (2, 74) = 2.30, $p = .107$). A Scheffe post hoc comparison of BMI scores across groups (alpha = .05) indicated that the NED group's mean BMI was significantly lower than that of the BB group.

Of the subjects selected to return for participation in the experiment (N = 78), 38 (48.7 percent) report that they have been in some type of psychotherapy or counseling; 60.9 percent of subjects in the BB group (n = 14), 53.3 percent of subjects in the BR group (n = 16), and 32 percent of subjects in the NED group (n = 8). A Chi square test of significance indicated no significant difference between groups on this variable (Chi square = 2.73, df = 2, $p = 0.25$). However, there was a much wider range of within group variance among the BB and BR groups in the number of psychotherapy sessions reported. These figures as well as the reasons group members reported for seeking psychotherapy are summarized in Table 6. Two BB subjects reported that they were currently taking antidepressant medication. One member of the BR group also reported current use of an antidepressant and one BR subject was taking Ritalin. None of the NED subjects reported psychotropic medication use.

Table 5: BMI and EDI descriptive statistics and bingeing and purging frequencies for groups

Group	BMI	Real-Ideal BMI	Bulimia	DFT
Behaviorally Bulimic (BB)				
Mean	21.65	2.51	9.26	18.13
Minimum	18.11	0.36	0.00	4.00
Maximum	29.80	7.66	20.00	21.00
n	22.00	22.00	23.00	23.00
SD	2.58	2.03	5.81	3.63
Behaviorally Recovered (BR)				
Mean	22.58	2.78	4.70	11.98
Minimum	16.69	0.51	0.00	0.00
Maximum	37.97	17.33	21.00	21.00
n	30.00	30.00	30.00	30.00
SD	4.06	3.05	5.54	6.55
Non-Eating Disordered (NED)				
Mean	19.05	0.15	0.00	0.20
Minimum	16.18	-0.94	0.00	0.00
Maximum	21.29	0.94	0.00	2.00
n	25.00	25.00	25.00	25.00
SD	1.17	0.51	0.00	0.50

Current bingeing and purging behaviors:

Group	Average Binges (monthly)	Average Diuretic use (monthly)	Average Diet Pill use (monthly)	Average Laxative use (monthly)	Average Vomiting (monthly)	Average Exercise (monthly)*
Behaviorally Bulimic (BB)						
Mean	13.57	0.35	4.87	3.04	9.96	1557.17
Minimum	8.00	0.00	0.00	0.00	0.00	0.00
Maximum	28.00	8.00	35.00	25.00	60.00	10800.00
n	23.00	23.00	23.00	23.00	23.00	23.00
SD	6.12	1.67	11.10	7.59	15.44	2393.66
Behaviorally Recovered (BR)						
Mean	1.35	0.00	3.97	0.00	0.80	315.08
Minimum	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	4.50	0.00	60.00	0.00	10.00	3600.00
n	30.00	30.00	29.00	30.00	30.00	30.00
SD	1.57	0.00	12.62	0.00	1.97	691.47

Table 5 (cont'd)

* Exercise is measured in minutes and reflects minutes per month exercised to burn off or "get rid of" large quantities of food eaten or a "binge."

Table 6: Psychotherapy sessions reported by groups and reasons for seeking psychotherapy

Group	Mean number of sessions	SD	Median	n*
BB	70.85	120.79	12.00	13
BR	45.29	39.63	38.75	12
NED	5.70	3.03	5.00	5

*Not all subjects who reported that they had been in therapy reported the number of sessions

Reasons for seeking therapy (chose as many as applied)	Group			
	BB	BR	NED	Total
Problems with Alcohol	n = 1 4.3%	n = 0 0.0%	n = 1 4.0%	n = 2
Anxiety	n = 4 17.4%	n = 3 10.0%	n = 2 8.0%	n = 9
Depression	n = 7 30.4%	n = 9 30.0%	n = 1 4.0%	n = 17
Drugs	n = 1 4.3%	n = 1 3.3%	n = 0 0.0%	n = 2
Eating Disorder	n = 7 30.4%	n = 8 26.7%	n = 0 0.0%	n = 15
Family Problems	n = 8 34.8%	n = 9 30.0%	n = 5 20.0%	n = 22
Other	n = 2 8.7%	n = 3 10.0%	n = 1 4.0%	n = 6
Sleep Problems	n = 3 13.0%	n = 0 0.0%	n = 0 0.0%	n = 3

Further descriptive information is included as Appendix G. Summaries of subject responses relevent to placement in the BB or BR group are provided in Appendix H.

Of the 23 BB subjects identified, 22 returned and completed the experiment. Of the 30 BR subjects identified, 26 returned and participated in the vignette phase of the experiment. Twenty-five NED subjects completed the experiment.

ISS

Hypotheses related to subjects' score on the ISS were tested using a one-way analysis of variance. Means and standard deviations of each group's ISS scores are presented in Table 7

The difference between groups was significant ($F(2, 75) = 12.11$, $p < .0001$). Planned comparisons found that the BB group reported significantly higher ISS scores than the averaged responses of the BR and NED groups ($T(30.4) = 3.116$, $p < .004$). **Hypothesis one**, that the BB group would report significantly higher ISS scores than either the BR or NED groups was supported.

Hypothesis two, that the difference between the BR and NED groups' ISS scores would not be significant was tested using a planned comparison. The difference between scores was found to be significant ($T(47.5) = 4.273$, $p < .001$) and the hypothesis was not supported.

RSI

Means and standard deviations of RSI real and ideal scale score responses for each group are presented in Table 8. Group means for each scale were standardized using Z transformations in order to correct for unequal scale lengths (which resulted in unequal maximum scores for each scale) and allow for comparisons across scales. Transformed mean scores are presented in Table 8 and graphically in figures 2-5.

Table 7: ISS Scores

	Mean	Standard Deviation
BB Group	52.39	26.80
BR Group	43.72	22.34
NED Group	23.13	12.81

Table 8: Means, standard deviations, and standard scores for RSI real and ideal scale scores by group

	Mean	Standard Deviation	Mean Z Score
BB Group			
Connected Self (CS)			
Real	51.91	6.33	0.14
Ideal	53.39	6.56	-0.16
Separate Self (SS)			
Real	49.82	11.24	0.21
Ideal	50.93	11.34	0.23
Primacy of Other Care (POC)			
Real	46.88	9.55	0.27
Ideal	43.65	11.01	-0.16
Self and Other Care (SOC)			
Real	64.95	6.67	-0.22
Ideal	70.20	7.13	-0.02
BR Group			
Connected Self (CS)			
Real	50.60	5.48	-0.09
Ideal	54.92	4.86	0.13
Separate Self (SS)			
Real	47.68	8.73	-0.03
Ideal	49.87	11.98	0.14
Primacy of Other Care (POC)			
Real	45.69	6.47	0.09
Ideal	42.90	8.69	-0.24
Self and Other Care (SOC)			
Real	66.07	5.77	-0.04
Ideal	73.57	4.56	0.50
NED Group			
Connected Self (CS)			
Real	51.80	4.22	0.12
Ideal	54.68	4.39	0.08
Separate Self (SS)			
Real	44.81	7.53	-0.35
Ideal	41.48	8.47	-0.53
Primacy of Other Care (POC)			
Real	44.10	7.01	-0.15
Ideal	45.48	8.39	0.06

Table 8 (cont'd)

NED Group (cont'd):

	Mean	Standard Deviation	Mean Z Score
Self and Other Care (SOC)			
Real	66.48	5.77	0.02
Ideal	70.12	6.48	-0.03

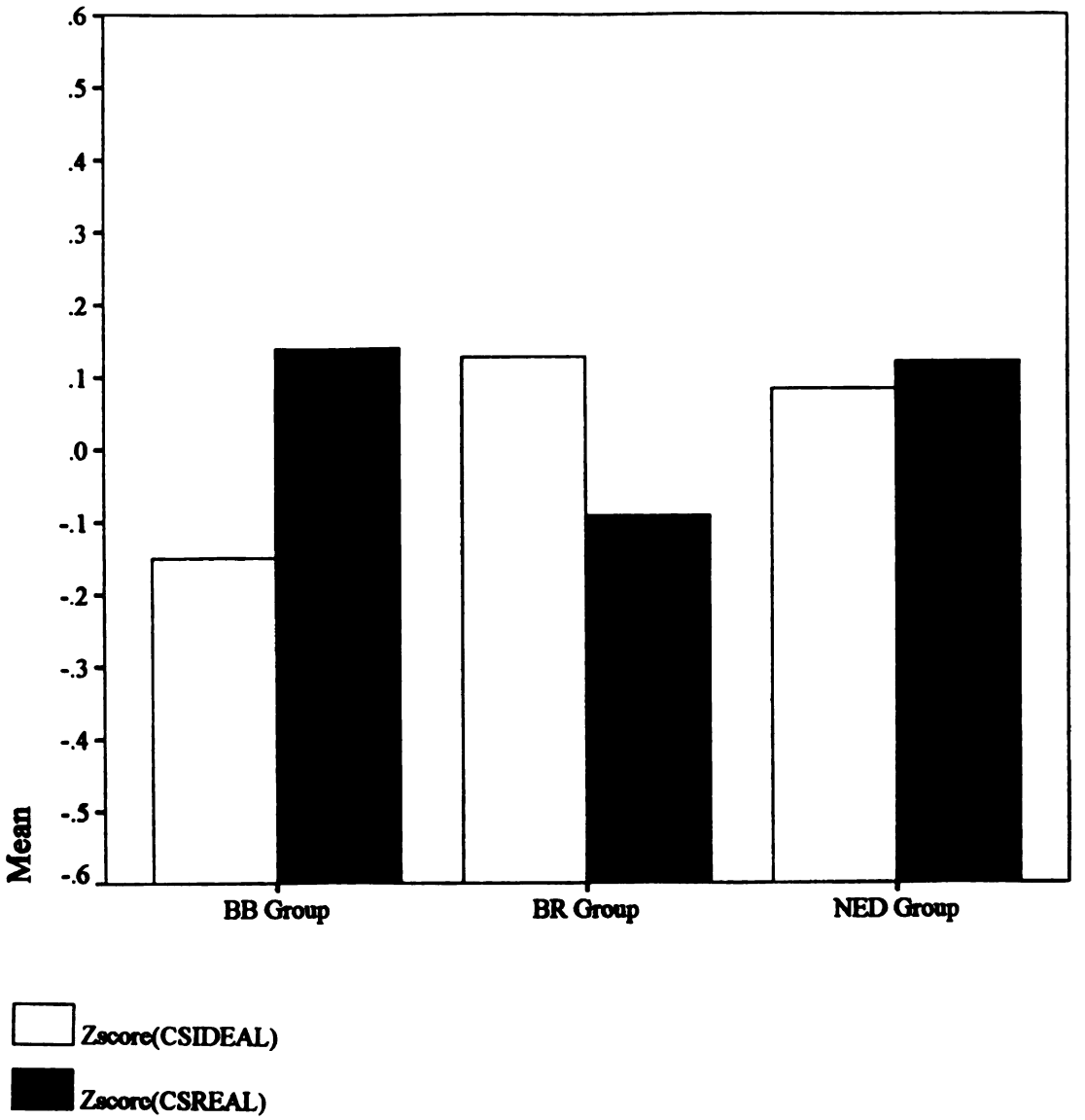

Figure 2: Connected Self By Group (Standardized Scores)

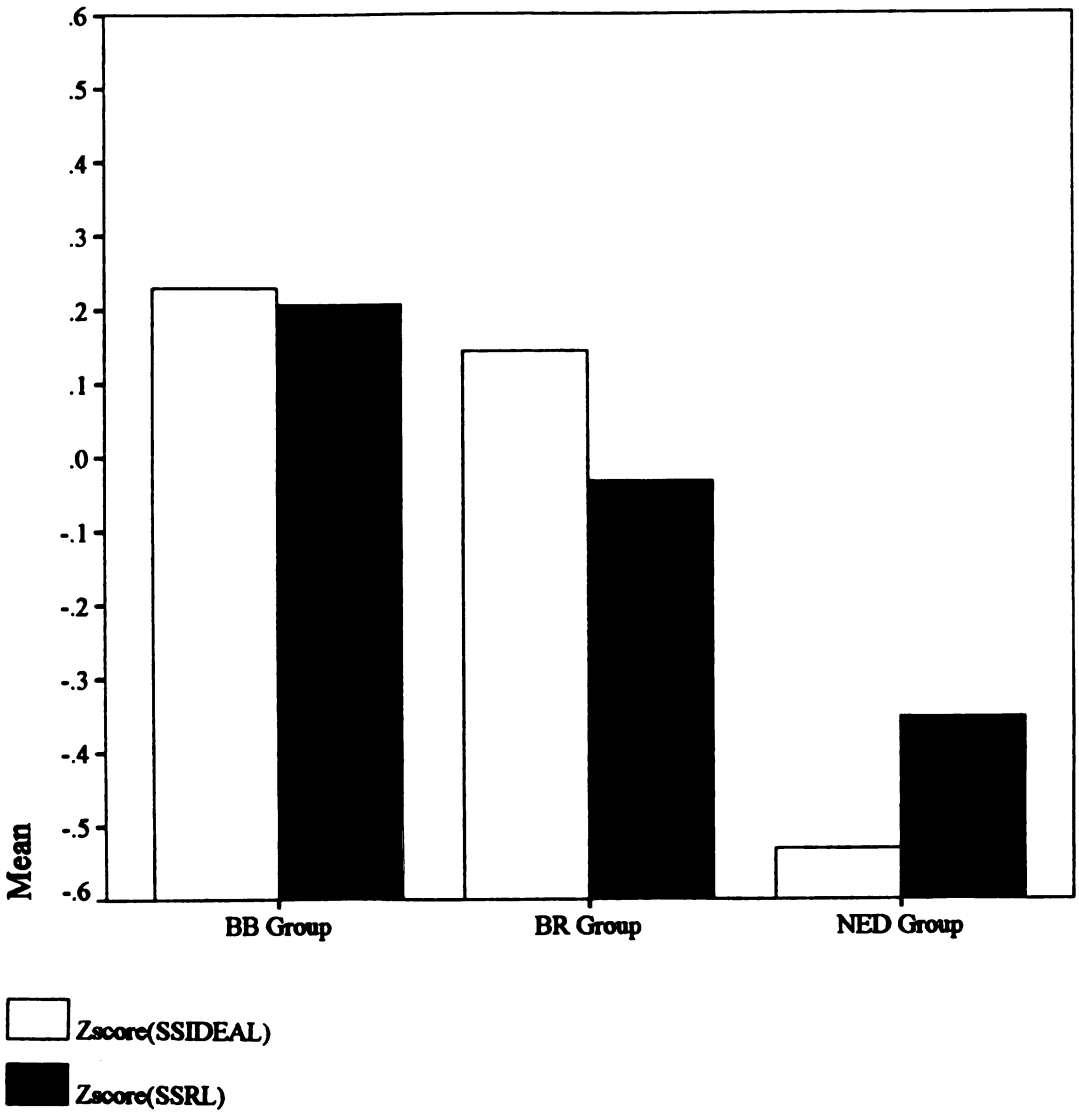

Figure 3: Separate Self By Group (Standardized Scores)

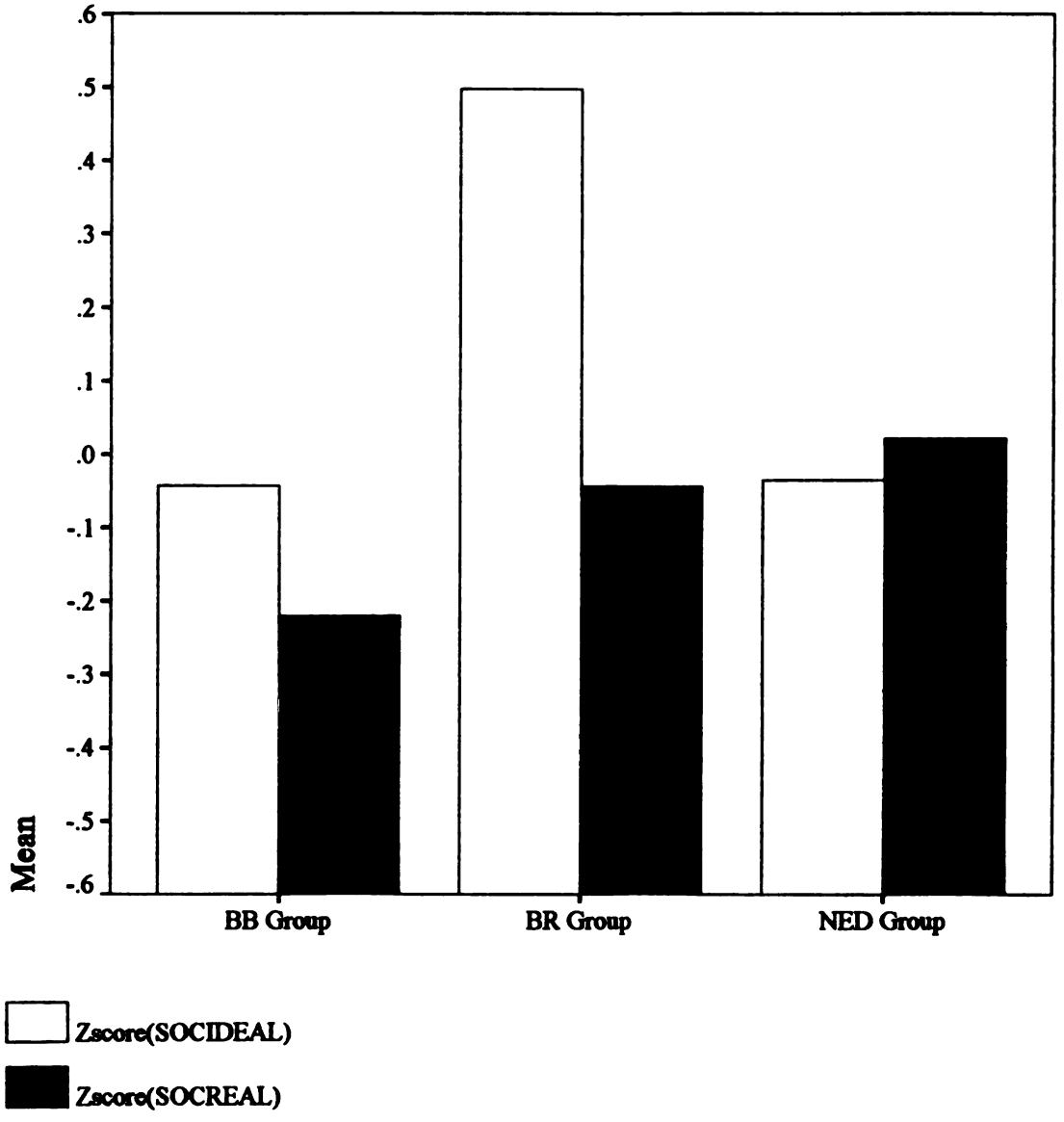

Figure 4: Self and Other Care By Group (Standardized Scores)

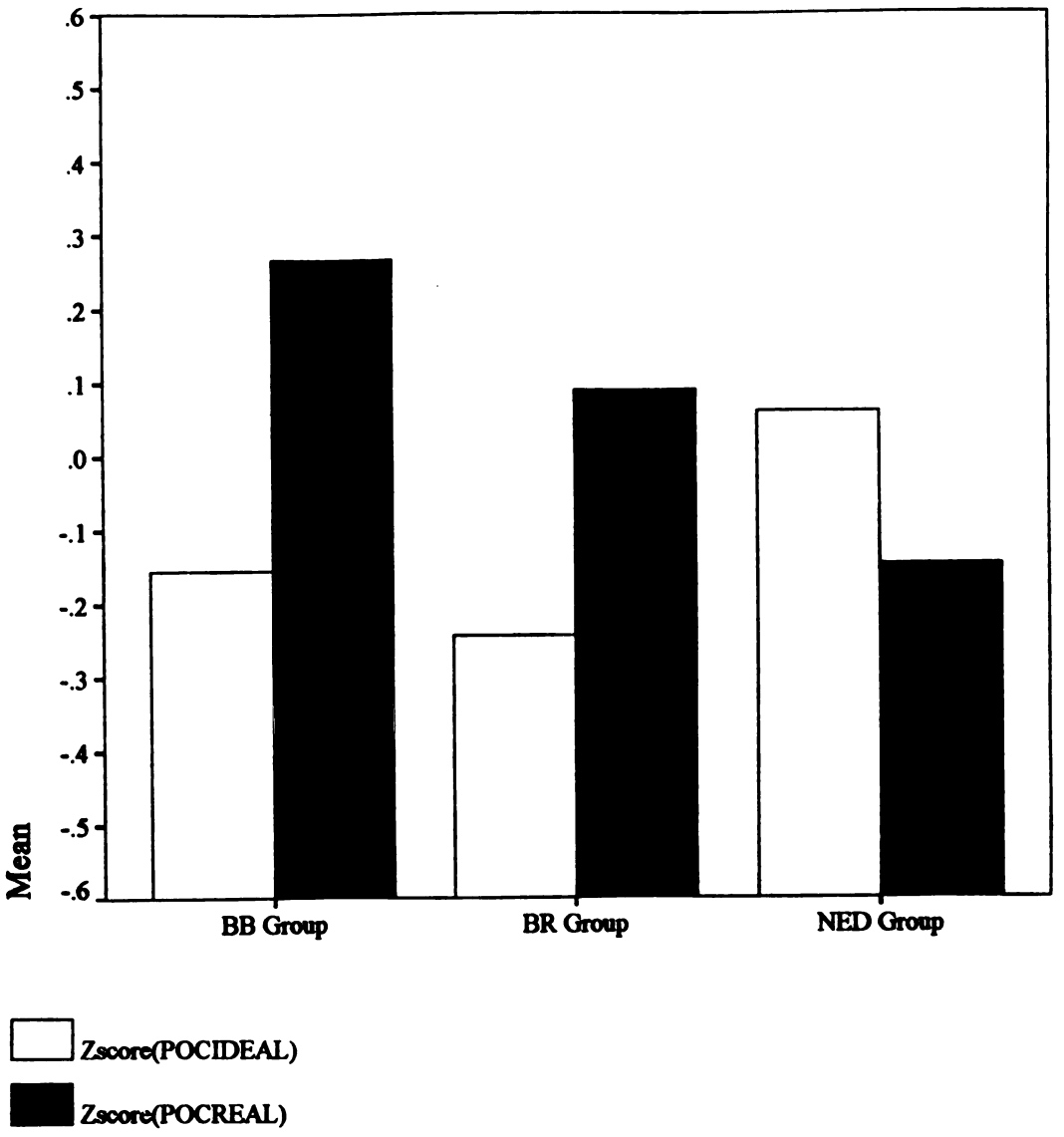

Figure 5: Primacy of Other Care By Group (Standardized Scores)

A repeated-measures analysis of variance was conducted on the original scores with group as the between factor variable and RSI scale and real/ideal condition as within subject factors. The difference between scale scores was significant ($F(4, 71) = 6097.48$, $p < .001$) (as would be expected). The ANOVA revealed no significant difference between groups on RSI scale scores ($F(8, 144) = 1.68$, $p < .107$). However, the interaction between group and real or ideal condition was significant ($F(8, 144) = 2.26$, $p < .026$). Finally, there was a significant difference between the real and ideal response conditions across groups ($F(4, 71) = 24.07$, $p < .001$).

Because the difference between real and ideal conditions was found to be significant, the data was broken down into these two conditions for further analysis. Multivariate analyses of variance were conducted between groups for both real and ideal conditions separately. These analyses are summarized in Table 9.

Under the "ideal" condition, a significant difference was found between groups in the Separate Self scores only ($F(2, 75) = 5.79$, $p < .005$). In order to further examine group differences on the Separate Self "ideal" condition variable, a one-way analysis of variance was conducted with this particular scale and condition as the dependent variable. Planned contrasts indicated that the averaged responses of the BB and BR groups were significantly higher than those of the NED group ($T(75) = 3.40$, $p < .001$) but that there was no significant difference between "ideal" Separate Self responses of the BB and BR groups ($T(75) = 0.36$, $p < .722$). These results offer only partial support for **hypothesis three:** that the BB group would score significantly higher on the Separate Self "ideal" scale than either the BR or NED groups (as there was no difference between the BB and BR groups). **Hypothesis four,** that there would be no significant difference between BR and NED groups on their scores on the "ideal" RSI was not supported.

"Real" RSI responses were also analyzed using a multivariate analysis of variance. **Hypothesis five** predicted that there would be no significant differences between BR and

Table 9: RSI--"Real" and "Ideal" scale scores analyzed by group

Real RSI:

Variable	Error MS	F	Significance of F
CS Real	28.93268	.49771	.610
SS Real	82.65758	1.40399	.252
SOC Real	36.44677	.39629	.674
POC Real	57.70067	.56396	.571

Ideal RSI:

Variable	Error MS	F	Significance of F
CS Ideal	27.94613	.59693	.553
SS Ideal	116.17145	5.79053	.005
SOC Ideal	36.38729	2.94800	.059
POC Ideal	87.28210	.53641	.587

CS = Connected Self
SS = Separate Self
SOC = Self-Other Care
POC = Primacy of Other Care

NED scores on the "real" RSI. No significant group differences were found in any of the RSI scales completed under the "real" condition supporting the hypothesis. However, the nonsignificant group effect does not support the component of hypothesis six: that the BB group's "real" RSI responses would differ significantly from the other two groups. Power analyses revealed small effect sizes for all four "real" scale score variables (ranging from 0.011-0.037). The combination of small effect size and the size of the groups examined led to a less powerful test than would ideally be desired (power ranged from 0.291 on the Separate Self "real" variable to 0.11 on the SOC "real" variable). Once again, scale scores were standardized using Z transformations in order to correct for unequal scale lengths and allow for direct comparisons across scales. Figure 6 depicts the three groups' standardized RSI scale scores under the "real" response set. As predicted in hypothesis six, the BB group scored most highly on the Primacy of Others and the Separate Self scales.

Intercorrelations of RSI "real" scale scores for each group are presented in table 10. Table 11 depicts intercorrelations of real RSI scale scores for the prescreening sample. Hypothesis six additionally predicted that the normative negative correlation (-.23) between the Separate Self and Connected Self scores would not be obtained in the BB group due to the group's hypothesized conflicts related to dependency needs and self-reliance. This hypothesis was not supported. Both the BB and BR groups' Separate Self (real) and Connected Self (real) scores were significantly negatively correlated (-.560 and -.576 respectively).

Fisher's Z transformations were performed on RSI "real" scale score correlations for each group and for the prescreening sample in order to test for differences between groups and between groups and the prescreening sample. The correlation between the Connected Self and Separate Self scales was significantly different in the BB and NED groups ($p < .047$) and in the BR and NED groups ($p < .024$). Correlations between the

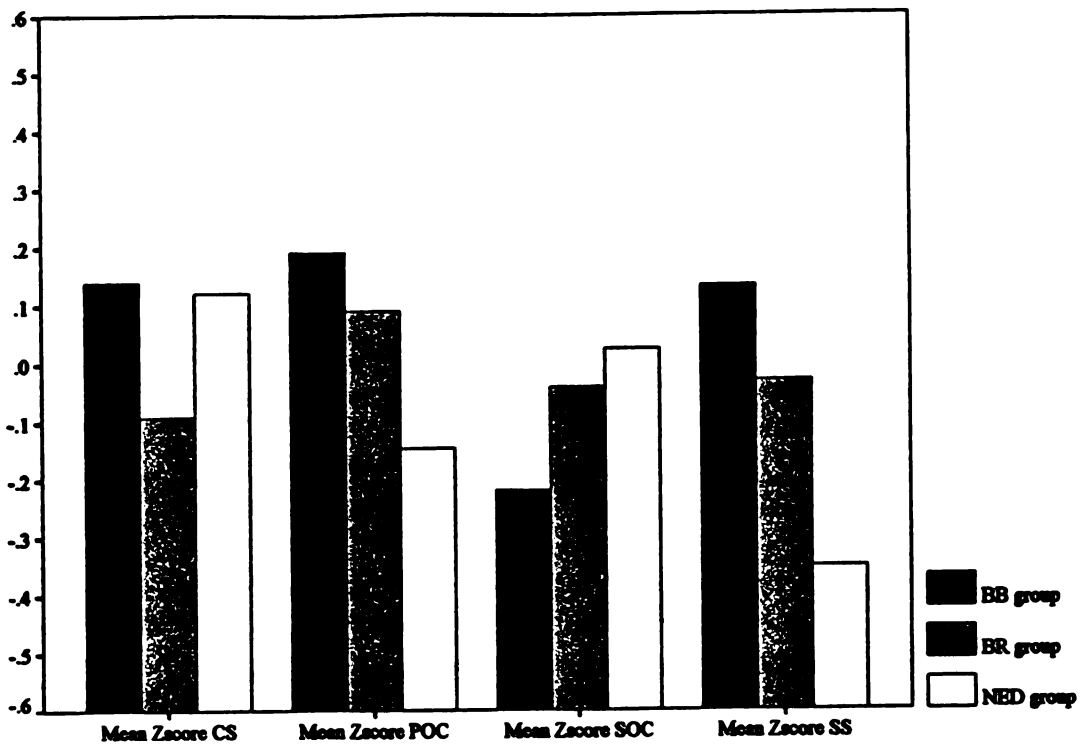

Figure 6: RSI: Real Responses By Group (Standardized Scores)

Table 10: Intercorrelations of "Real" RSI Scale Scores By Group

GROUP: BB group

- - Correlation Coefficients - -

	CSREAL	POCREAL	SOCREAL	SSRL
CSREAL		.5577	-.1705	-.5603
		(22)	(22)	(22)
		P= .007	P= .448	P= .007
POCREAL			-.6877	-.2970
			(22)	(23)
			P= .000	P= .169
SOCREAL				.4890
				(22)
				P= .021
SSRL				

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

GROUP: BR group

- - Correlation Coefficients - -

	CSREAL	POCREAL	SOCREAL	SSRL
CSREAL		.5431	.0423	-.5758
		(30)	(30)	(30)
		P= .002	P= .824	P= .001
POCREAL			-.3296	-.3253
			(30)	(30)
			P= .075	P= .079
SOCREAL				.2110
				(30)
				P= .263
SSRL				

(Coefficient / (Cases) / 2-tailed Significance)

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Table 10 (cont'd)

GROUP: NED group

- - Correlation Coefficients - -

	CSREAL	POCREAL	SOCREAL	SSRL
CSREAL		.3594 (25) P= .078	.2009 (25) P= .336	-.0144 (25) P= .946
POCREAL			-.2340 (25) P= .260	-.0300 (25) P= .887
SOCREAL				.5161 (25) P= .008
SSRL				

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

Table 11: RSI "Real" Scale Score Intercorrelations for the Prescreening Sample

- - Correlation Coefficients - -

	CSREAL	POCREAL	SOCREAL	SSRL
CSREAL		.3969 (679) P= .000	.2499 (679) P= .000	-.2270 (679) P= .000
POCREAL			-.1350 (679) P= .000	-.1373 (680) P= .000
SOCREAL				.3523 (679) P= .000
SSRL				

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

Primacy of Others Care and Self and Other Care scales varied significantly as well. The negative correlation between these scales in the BB group was significantly greater in magnitude than the negative correlation between these scales in the prescreening sample ($p < .002$) or in the NED group ($p < .05$). No other significant differences were detected. However, an examination of the correlations between Connected Self and Self and Other Care scales showed a notable trend. The correlation between the two scales was negative in the BB group ($r = -.1705$), was almost nonexistent in the BR group ($r = .0423$) and was positive in the NED and prescreening groups ($r = .2009$ and $r = .2499$ respectively). The difference in the magnitude of the correlation between the prescreening sample and the BB group barely escaped significance ($p < .064$).

Finally, correlations between RSI real and ideal scale scores and subjects' ISS scores were examined by group. These correlations are presented in Table 12. Fisher's Z transformations were performed on the correlations between RSI scale scores and ISS scores in order to test for differences between groups. The correlation between real Primacy of Other Care and ISS score was significantly different in the BB and NED groups ($p < .002$). The difference between BB and NED groups in the magnitude of the correlation between ideal Connected Self and ISS score narrowly missed statistical significance ($p < .055$).

Responses to Vignettes

Figure 7 displays the mean ratings of shame across the three vignettes. Ratings of shame by group across vignettes are depicted in Figure 8. All three groups attributed a higher level of shame to the woman who expressed dependency needs than to the individual who expressed self reliance. Means and standard deviations both across and within groups for each vignette are presented in Table 13.

Table 12: Correlations of RSI Real and Ideal Scale Scores with ISS Scores (By Group)

	BB	BR	NED
Connected Self (real)	.2785	-.0181	-.2572
Connected Self (ideal)	.1314	-.0531	-.4283*
Separate Self (real)	.0155	.1732	.2262
Separate Self (ideal)	.1301	.2280	.3384
Primacy of Other Care (real)	.6270*	.3094	-.1817
Primacy of Other Care (ideal)	.2850	.0731	-.2271
Self and Other Care (real)	-.3058	.1918	.1106
Self and Other Care (ideal)	.0818	.3460	.2099

*Indicates significance at alpha = .05

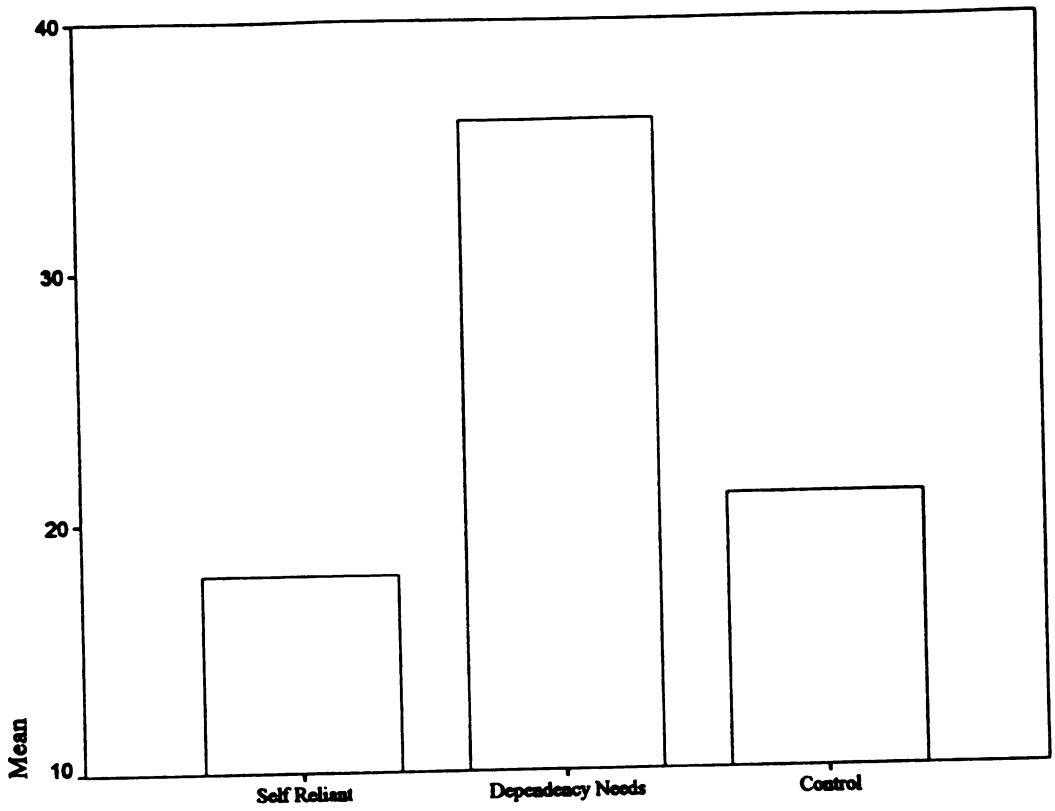

Figure 7: Shame Ratings Across Vignettes

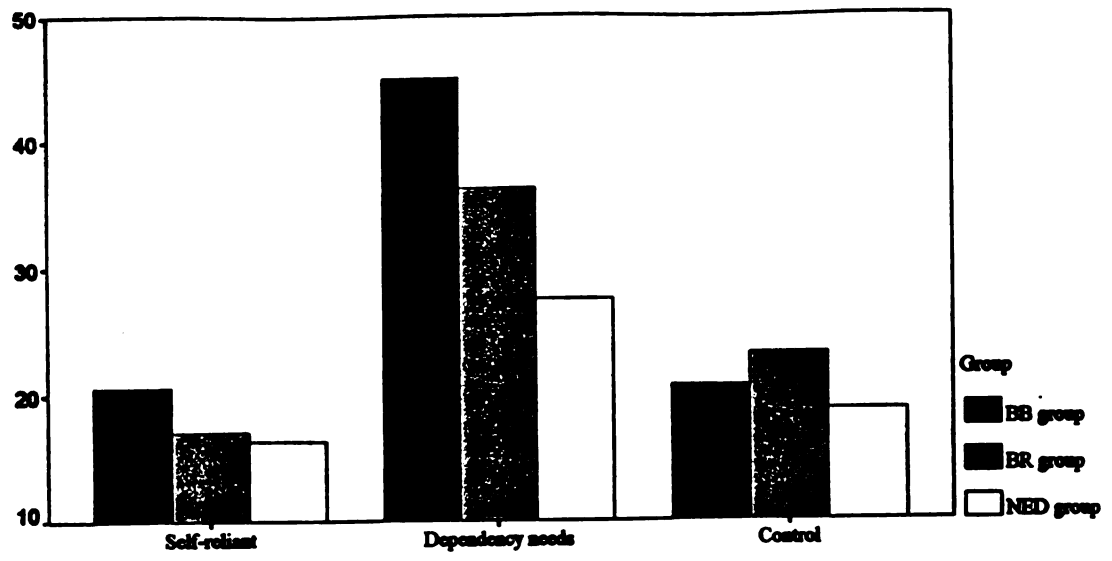

Figure 8: Ratings of Shame Across Vignettes By Group

Table 13: Ratings of Vignettes

Across All Groups:	Mean	SD
Self reliant individual	17.88	15.31
Individual who expressed dependency needs	35.97	18.63
Control	20.90	15.72
Between Groups:	**Mean**	**SD**
BB Group:		
Self reliant individual	20.61	20.02
Individual who expressed dependency needs	45.09	20.22
Control	20.66	15.77
BR Group:		
Self reliant individual	17.04	8.40
Individual who expressed dependency needs	36.38	17.72
Control	23.16	16.59
NED Group:		
Self reliant individual	16.36	16.41
Individual who expressed dependency needs	27.52	14.32
Control	18.76	15.06

In order to investigate **hypothesis seven**, that the BB group would attribute significantly higher levels of shame to the woman who expressed interpersonal needs than to the woman expressing self reliance, a repeated measure analysis of variance was run for the BB group separately. The difference in attributions of shame across vignettes for the BB group was significant ($F(2, 42) = 13.60, p < .0001$). A planned comparison revealed a significant difference between the BB group's rating of the vignettes depicting interpersonal needs and self reliance ($F(1, 21) = 16.07, p < .001$) supporting the hypothesis.

The data were also analyzed to examine differences in the ISS scores across vignettes and between groups. A repeated measures analysis of variance indicated that the group effect fell just short of the .05 level of significance ($F(2, 70) = 2.98, p < .057$). The difference in the level of shame scores across vignettes was significant ($F(2, 140) = 33.79, p < .0001$) The interaction between group and shame ratings was not significant ($F(4, 140) = 2.24, p = .068$).

In order to investigate **hypothesis eight**, that the BB group differed significantly from both the BR and NED groups in their attribution of shame to the woman who expressed dependency needs, a one-way analysis of variance was conducted comparing the three groups' responses to that particular vignette. The ANOVA indicated a significant difference between groups in their ISS ratings for the dependency needs vignette ($F(2, 70) = 5.93, p = .0042$). A planned comparison revealed that the BB group's attribution of shame to this vignette was significantly higher than the averaged responses of the BR and NED groups ($T = 2.949, p < .004$), as hypothesized.

The final hypothesis, **hypothesis nine**, involved the relationship between level of bingeing and purging and the magnitude of the ISS score assigned to the woman who expressed dependency needs. It was hypothesized that the level of shame (ISS score) attributed to the vignette depicting dependency needs across groups would be positively

correlated with the individuals' levels of bingeing and purging. Because the NED group was specifically based on the absence of bingeing and purging, the data from this group was excluded from examination. The BB and BR groups were combined and the correlations between the dependency needs ISS, current binge frequency, and current purging frequencies (vomiting, laxative use for weight loss, diet pill use, diuretic use, and exercise to work off a binge) as well as "worst ever" levels of bingeing and purging were examined. An overall purging index was also created for each individual consisting of the sum of all current purging activities reported other than exercise (the sum of vomiting episodes, laxatives taken, diet pills taken, and diuretics taken). None of the bingeing or purging variables were significantly correlated with the dependency needs ISS score. Hypothesis nine was not supported. The data obtained from the BB and BR groups was also examined for significant correlations between the self-reliance vignette ISS score and the bingeing and purging variables. Again, there were no significant correlations. The BB and BR groups' data was examined individually as well. Within the BB group, the ISS score attributed to the dependency needs vignette was significantly negatively correlated with magnitude of current diet pill usage ($r = -.4518$, $p = .035$), however, only five individuals in the group reported any current use of diet pills. The correlation between the interpersonal needs ISS variable and "worst ever" diet pill use was also highly significant ($r = -.8156$, $p < .004$). Within the BR group, although there was no apparent correlation between reported current levels of bingeing and purging and the dependency needs ISS score, there were significant relationships between the dependency needs ISS score and the reported "worst ever" level of bingeing ($r = .4294$, $p = .029$) as well as between the dependency needs ISS score and the reported "worst ever" level of vomiting ($r = .3992$, $p = .053$), and "worst ever" use of laxatives to purge ($r = .7328$, $p < .001$). BB and BR correlations of these eating disorder diagnostic variables with the dependency needs ISS score are presented for BB and BR groups in Table 14.

Table 14: Correlations of Eating Disorder Diagnostic Variables with ISS Score attributed to the Interpersonal Needs Vignette: BB and BR Groups

	BB	BR
Bulimia (EDI)	-.4084	.1084
Drive For Thinness (EDI)	-.0267	-.3287
Current binge frequency	-.1865	-.0210
Current level of overall purging	-.3530	.0057
Current vomiting frequency	-.1612	.2330
Current laxative use frequency	-.0337	.
Current diuretic frequency	.2642	.
Current diet pill frequency	-.4518*	-.0385
Current amount of exercise to work off a binge	-.1786	.0227
"Worst ever" binge frequency	-.3580	.4294*
"Worst ever vomiting frequency	-.1790	.3992*
"Worst ever" diet pill frequency	-.8156*	.4459
"Worst ever" laxative use frequency	.1088	.7328*

* Indicates statistical significance (alpha = .05)

DISCUSSION

Demographics and descriptive information

There is no evidence that this sample of behaviorally bulimic (BB) and behaviorally recovered bulimic (BR) subjects differed in prevalence or on demographic variables from similarly aged samples of women who report that they meet (or have met) the diagnostic criteria for bulimia nervosa. Of the original subject pool, 3.38 percent met the criteria for inclusion in the behaviorally bulimic group (BB), consistent with available prevalence data for this age group (Neuman & Mitchell, 1986; Rand & Kuldau, 1992). No known prevalence data is available on the percentage of college-age women who report previous bulimia nervosa. Although the BR subjects no longer met diagnostic criteria for bulimia nervosa, subjects in this group did report some bulimic tendencies and behaviors. Ideally, this study would have included only "perfectly recovered" individuals for inclusion in the BR group, that is, subjects who reported no evidence of eating disordered cognitions or behaviors. However, given the low prevalence estimates for bulimia nervosa, the relatively low percentage of individuals who report recovery (Keller et al., 1992), the young age of the sample population, and the limits of data collection capabilities, more lenient criteria were employed. This may have limited the degree of differences between the BB and BR groups (and degree of similarities between the BR and non-eating disordered (NED) groups).

The finding that the non-eating disordered (NED group) reported significantly lower body mass indexes (BMIs) than the BB group is notable. The NED group's mean BMI (19.05) fell below the 15th percentile for women (at age eighteen) while both the BB and BR group's reported BMIs fell solidly within the normal range. This finding is consistent with previous research suggesting that college women who report satisfaction

with their body weight and shape and who do not diet are thinner than average (Mortenson, Hoerr, & Garner, 1993), although it should be noted that BMIs were based on subjects' self report and were not objective measures. It is a possibility that the NED subgroup has been less vulnerable to the development of symptoms related to weight, body size and to eating disorders because they are physiologically predisposed to be thin.

Individual Shame: Internalized Shame Scale (ISS) scores

Subjects' scores on the Internalized Shame Scale (ISS) reveal important differences between groups. As hypothesized, the BB group reported significantly higher levels of internalized shame than the BR or NED groups. The mean score for the BB group (52.39) falls above the 85th percentile for the female non-clinical normative sample reported by Cook (1993). The BB group's ISS score also falls above the cutoff point (a score of 50) identified by Cook as indicative of "painful, possibly problematical levels of internalized shame." This finding is not surprising. It provides empirical support for common clinical observations and replicates previous research (McCreery, 1991).

The hypothesis that there would be no significant difference between the BR and NED groups' ISS scores was not supported. The BR group had significantly higher shame scores than the NED group. If ISS scores are related in any way to feelings of shame about eating disordered behavior, or if eating disordered behavior and cognitions are the result of underlying shame, this finding would be somewhat expected, given that the BR group continues to report some bulimic tendencies and behaviors. The trend of declining ISS scores from BB to BR to NED groups supports a theory of a relationship between the intensity of bulimic pathology and feelings of internalized shame. However, it does not explain the cause of the shame. Is the shame solely caused by the individual's feelings about her eating disordered behaviors (i.e. shame that she binges or purges) or is it related to feelings, ideas or perceptions which may underlie, perpetuate, or influence bulimic behaviors? Responses to the Relationship Self Inventory (RSI) and to the

audiotaped vignettes support the theory that the role of shame in bulimia nervosa appears to be more than a secondary reaction to bulimic symptoms and appears to be intertwined with perceptions of dependency needs and self-reliance.

Self definition and ideals: Responses to the Relationship Self Inventory (RSI)

One purpose of the study was to explore whether or not bulimics define themselves and their ideals about relatedness differently than recovered bulimics or non-eating disordered individuals. Responses to the Relationship Self Inventory (RSI), both real and ideal, showed few differences between groups. However, the overall pattern of scores support the hypothesis that bulimics sense of themselves--both in relation to and apart from others--is more conflicted than non-eating disordered or recovered bulimic women .

Self orientation

Although no significant differences were found between groups on "real" RSI scale scores, an examination of each groups' patterns of scores reveal important differences in the relationship between scales. It was hypothesized that bulimics have both shame and conflictual feelings related to dependency needs which result in an emphasis on self-reliance and isolation. Real RSI scores were expected to reflect conflicts in this group's expressions of connection and separation. The differences in magnitude were not statistically significant; however, as hypothesized, the BB group's highest scores were on the Separate Self and the Primacy of Others scales. The Separate Self scale emphasizes separation, independence and autonomy as a means of self definition. The core theme of the Primacy of Others scale is care of others, frequently at one's own expense. Care of others has priority over care of self in the type of connectedness which subjects endorse on this scale. The Primacy of Others scale was designed to reflect an immature developmental phase of connectedness. This mode of the connected self is theoretically more subject to problematic outcomes than that mode represented by the Connected Self or Self and Other Care Scale (Pearson et al, 1991).

The BB group's lowest scale score was on Self and Other care, the scale which assesses mature interdependence, in which care of the self is integrated with care of others. A tentative hypothesis that the normative negative correlation between the Connected Self and Separate Self scales would not be replicated in the BB group because of conflicted feelings related to these two constructs was not supported. In fact, the BB and BR groups' Separate Self and Connected Self scores showed extreme negative correlations, in contrast to the nonsignificant correlation found in the NED group and the moderate correlations found in the original normative group. The correlations between Connected Self and Separate Self were significantly different between both the BB and NED groups and the BR and NED groups. Although this outcome is different than what was hypothesized, it supports the theory that bulimics perceive concepts of autonomy, separateness, and interrelatedness as irreconcilable polar opposites. This appears to be true for the BR group as well.

An examination of the correlations between Primacy of Other Care and Self and Other Care further suggests the possibility that bulimics have much greater difficulty integrating concepts of individuation and self care with ideas of connectedness and interdependency. The scales are significantly more negatively correlated in the BB group ($r = -.688$) than in the NED group ($r = -.234$). The correlation in the BR group, perhaps better labeled the "recover*ing* " group, falls between the other two groups. Correlations between the Connected Self and Self and Other Care scales lend additional support to this theoretical formulation. The Connected Self and Self and Other Care scales are conceptually linked. The Connected Self scale reflects a mode of self definition in which relations with others are central. The Self and Other Care scale was created to describe the most developmentally mature form of a connected self orientation, in which the self is clearly integrated and included in those who are cared for; self and other are understood as equally deserving of care. In the BB group, scores on these two scales are negatively

correlated. In the BR group, they are virtually uncorrelated, and in both the NED and prescreening groups the two scales show moderate positive correlations.

An examination of correlations between real RSI scale scores and subjects' own ISS scores further elucidates the differences in the way the groups define themselves relative to relationships with others. The correlation between internalized shame and the Primacy of Other Care score in the BB population is striking ($r = 0.627$, $p < .001$) indicating a significant relationship between feelings of shame about the self and a mode of self definition focused on the care of others. The same correlation in the NED group is not significantly different from zero, offering evidence that feelings of shame about the self are much less strongly linked with feelings of dependency. Once again, the correlation in the BR group is more moderate, and does not reach significance ($r = .3094$, $p < .096$), offering support for the hypothesis that with recovery, feelings of shame and feelings of dependency become less linked.

The BB group appears to have more difficulty than the other groups defining themselves in a way which integrates both concepts of individuation and connection. They appear to have difficulty differentiating developmental concepts of mutual interdependence from unilateral dependency. While the BR group did not look identical to the NED group in their real RSI responses, their scores show less evidence of difficulties with concepts of separateness and connection. This supports the theory that the resolution of this conflict is linked to recovery from bulimia nervosa in some way.

Ideal self orientation

Under the "ideal" response condition, the groups differed significantly only on the Separate Self scale. The BB and BR groups defined their ideal self as significantly higher on the Separate Self dimension than the NED group. It was hypothesized that the BB group would score significantly higher on the Separate Self ideal than the NED group, reflecting a "false self ideal" developed to counter feelings of shame related to interpersonal

or dependency needs. It was additionally predicted that the BR and NED groups would have scale score profiles that were similar to each other, placing less emphasis on ideals of separation and autonomy. However, the ideal responses of the BR group resembled the BB group and not the NED group in this respect.

The finding that the BB group expressed significantly higher Separate Self ideals than the NED group is important. This result runs directly counter to theories that bulimic women over-idealize traditional feminine characteristics such as intimacy and dependency (Boskind-Lodahl, 1976; Pettinati, Franks, Wade, & Kogan, 1987) and lends support to theories which emphasize conflicts related to connectedness/separation or an overidealization of autonomy and self-reliance. This finding receives some corroborating support from earlier research in which bulimic women professed significantly higher ideals of autonomy than non-bulimics (McCreery, 1991).

Further longitudinal research would be necessary to tease out whether or not the magnitude of the ideal Separate Self score for the BR group would decline with continued recovery. Again, the level of subdiagnostic bulimic behaviors and cognitions in this group indicate that the BR group has not completely resolved the issues, feelings, or conflicts that led to their bulimia. An additional possibility exists. Even if dependency/autonomy conflicts are key dynamics in the development of bulimia nervosa, it is possible that recovery from bulimia does not involve a complete resolution of these conflicts. It may be, that for some individuals, recovery occurs as the individual learns to tolerate these conflicts without focusing on bingeing and purging behaviors and issues of weight and appearance. However, the present study presents evidence that the conflict is at least ameliorated if not fully resolved. Intercorrelations on many of the RSI scale scores and correlations of RSI real scale scores with subjects' ISS scores show a tendency to moderate and/or move in the direction of the NED group's scores in the BR group. An example is the correlation between subjects' ISS scores and their scores on the ideal Connected Self

scale. In the NED group these variables are significantly negatively correlated. As the ideal Connected Self score rises, ISS scores decline. The correlation is small but positive (although not statistically significant) in the BB group (r = .1314). A rise in ideal Connected Self scores is linked with increased shame. In the BR group the variables are virtually uncorrelated (r = -.0531).

Shame and the Perception of Dependency Needs: Responses to Vignettes

Responses to the audiotaped vignettes provide additional information about the possible meaning of the groups' differing real and ideal RSI profiles. This data offers support for the hypothesis that bulimics view healthy dependency needs as shameful, significantly more shameful than recovered bulimics or non-eating disordered women.

The BB group attributed a significantly higher level of shame to the woman who expressed dependency needs than to the woman depicted as self-reliant. In fact, according to the BB group, using non-clinical norms for females aged 17-63 (Cook, 1993), the woman who expressed dependency needs falls at the 77th percentile for internalized shame. The individual depicted as self-reliant was classified in the 21st percentile by the BB group. While all three groups attributed higher ISS scores to the woman who expressed dependency needs, the BB group's attribution of shame to the dependency needs vignette was signficantly higher than the BR or NED groups' attributions of shame. As would be expected, hypothesizing that the BR group is in the midst of a recovery *process* , the BR group's attribution of shame for this vignette fell between the BB and NED group's scores.

The finding that the BR group rated the woman who expressed interpersonal needs as less ashamed than the BB group is important to note. The present research replicates an earlier study in which bulimic women attributed significantly more shame to the individual in the interpersonal needs vignette than did non-bulimic women (McCreery, 1991). That women who no longer meet the diagnostic criteria for bulimia attribute significantly lower levels of shame to an individual expressing interpersonal needs than do women who are

currently bulimic suggests that a change in the perception of dependency needs is involved in the recovery process. This hypothesis has somewhat more validity given that both BB and BR subjects were identified from a general population of college students and were not specifically recruited for a study on "eating disorders," creating less likelihood that only a certain subgroup of recovered individuals volunteered for inclusion in the study.

It should be noted that none of the groups seemed to differentiate the control vignette from the self-reliant vignette. While it may not be possible to create a truly neutral depiction, the self reliant vignette and the control vignette were clearly different. The woman in the self reliant vignette professed autonomy and non-reliance on others and the woman in the control vignette balanced expressions of autonomy with expressions of interpersonal need and interdependence. Previous validity testing demonstrated a difference between the vignettes. The lack of discrimination between the self reliant and control vignettes in attributions of shame raises an interesting possibility. All three groups perceived the individuals in the neutral and self-reliant vignettes as equals in terms of their level of shame. All three groups rated the woman who expressed dependency needs as having a higher level of shame than the other two women. It appears that all subjects were much more sensitive to the absense of a strong value of self-reliance (as in the dependency needs vignette) than they were to the absense of a value of connectedness (in the self-reliant vignette). This may, in part, reflect an age appropriate developmental concern. Young college women are typically working through issues related to a significant physical and psychological separation from their family of origin. This lack of sensitivity to the absence of values of connectedness and interdependence may also reflect the lack of emphasis on and validation of these concepts in the mainstream culture.

An attempt to clarify the relationship between the level of shame attributed to dependency needs and the magnitude of bingeing and purging behaviors yielded interesting findings. It was hypothesized that the level of shame attributed to the woman who

expressed dependency needs would be positively correlated with subjects' levels of bingeing and purging. Shame over dependency needs was hypothesized to lead to the denial of dependency needs and attempts to gratify them indirectly by bingeing. Purging was hypothesized to represent an undoing of the binge or a resurgance of denial of interpersonal need.

No such relationship emerged in the data. Although there was some evidence of a statistically significant relationship between the severity of bingeing and purging symptoms and the shame attributed to interpersonal needs in the BR group, this was only apparent in the BR's report of their worst level of bingeing, vomiting, and laxative use--not their present level. Even more glaring was the lack of any such pattern of correlations in the BB group (statistically significant or not). In fact, in the BB group, the severity of bingeing and vomiting, amount of laxatives used to purge, amount of diet pills used, and the amount of exercise presently used to "burn off a binge," as well as "worst ever" levels of vomiting, bingeing, and diet pill use and Drive for Thinness and Bulimia EDI scores were all *negatively* correlated with the shame score for the interpersonal needs vignette. (It needs to be stressed that only two of these correlations--the correlations of the interpersonal needs vignette with current diet pill use and with worst diet pill use were statistically significant).

One explanation for this finding is consistent with the theoretical hypothesis that the bulimic is engaging in bulimic behaviors in order to defend against the deeper internalized shame she feels about her own dependency needs (Kaufman, 1989; Wurmser, 1981). An error in the development of the hypotheses of this study appears related to a lack of attention to the bulimic's need to defend against her feelings of shame. According to both Kaufman and Wurmser, the bulimic not only defends against her dependency needs (through denial and by using food as a substitute for emotional intimacy), she also defends against the intense feelings of shame she experiences related to those needs (Kaufman, 1989; Wurmser, 1981).

Based on this theoretical formulation, the BB group can be viewed as using bulimic behaviors in a defensive manner--as a substitute for dependency needs which are associated with shame too painful to allow one's self to experience. To the extent that the bulimic is actively bingeing and purging, she is defending herself against the shame she associates with interpersonal needs and is likely to deny the shamefulness of interpersonal needs--in herself or in another individual. Specifically, the data for the BB group indicate that as bingeing and purging increase, the shame bulimics attribute to the interpersonal needs vignette decrease. A hypothesized explanation deserving further research attention is that bulimia serves to help the bulimic avoid her affective experience (shame) of interpersonal needs. This would suggest that, were the bulimic group not bingeing and purging, the level of shame attributed to the woman who expressed dependency needs might have been even higher.

The trend of negative correlations between measures of eating disorder and the shame attributed to interpersonal needs is not as strongly or clearly depicted in the BR group. The BR group shows three statistically insignificant negative correlations between the level of shame they attributed to the interpersonal needs vignette and their current level of bingeing, current level of diet pill usage, and their Drive for Thinness score on the EDI. However two of these negative correlations (the correlation of the vignette with current bingeing and with current diet pill usage) are extremely close to zero (-.02 and -.04 respectively). On all measures of current bingeing and purging (including the use of exercise to purge), on measures of "worst ever" levels of bingeing and purging, and on the EDI Bulimia scale, the correlation with the interpersonal need shame score was higher and more positive for the BR group than for the BB group (current level of laxative and diuretic use were excluded because none of the recovered bulimics reported current use). Not only does the BR group attribute less shame to the interpersonal needs characterization, they do

not appear to use bingeing, purging, and eating disordered cognitions to modulate their perception of shame in the same way the BB group appears to.

This finding is preliminary and reflects only statistical trends noted in the data (although it should be noted that because of the effect of group size on statistical significance, some of the "nonsignificant" trends were quite large--in the BB group the correlation between shame on the interpersonal needs vignette and the Bulimia scale was -0.41 ($p < .059$) and between the same vignette and level of purging was -0.35 ($p < .107$)). The data suggest, however, that bulimic symptoms--bingeing, purging, the tendency towards bingeing, impulses to purge, and extreme concern with dieting, weight, and the pursuit of thinness--serve a defensive purpose for the BB group that they do not serve for the BR group. It may be that recovery from bulimia must involve not only an increased acceptance of dependency needs and decreased levels of shame attributed to those needs, but also an increased ability to tolerate and acknowledge affect (a common clinical observation), or at least, feelings of shame.

The results of the present study suggest that bulimics define themselves and their ideals about relatedness somewhat differently than non-eating disordered women or recovered bulimics. Additionally, the study provides evidence that behaviorally bulimic women appear to perceive nonpathological dependency needs as shameful--significantly more shameful than non-eating disordered women and recovered bulimic women view these needs. The findings of the present study are however, somewhat preliminary. Additionally, the study only begins to examine the role of shame and of perceptions of dependency needs in bulimia and in recovery. Further research aimed at replicating and further exploring differences between bulimics and recovered bulimics, as well as longitudinal studies which detail the recovery process, are essential in order to better clarify and define the dynamics underlying recovery. Longitudinal research which seeks to begin examining these variables before eating disordered behavior develops could also provide

important data about the meaning and motivations underlying bulimia nervosa. This research might also further elucidate the relationship between bulimics' perception of dependency needs and severity of bulimic symptoms.

The present study has several limitations which should be considered in developing future research. The population studied consisted exclusively of college students who may have somewhat different perceptions and ideals and who may represent a distinct (though still significant) subgroup of eating disordered women. Because of a desire not to bias the sample by recruiting specifically for eating disordered individuals, it was difficult to recruit large sample sizes. Important trends or differences between groups may have gone undetected. In this same vein, the BR group was not "perfectly recovered." It would be both interesting and important to examine the same variables in a group of women who showed long term and complete recovery from bulimia.

Finally, subjects were assigned to groups based on their fairly anonymous, written self reports of behaviors. While this methodology has some advantages, it must be noted that the study lacks real objective measures of eating disordered behaviors, history, body mass index, and other diagnostic variables. Findings based on these more specific characteristics must be viewed tentatively and interpreted with this in mind.

CONCLUSION

The study sought to answer two major research questions:

1. Do bulimics define themselves and their ideals about relatedness differently than non-eating disordered or recovered bulimic women?
2. Do bulimics view healthy dependency needs as shameful, significantly more shameful than non-eating disordered and recovered bulimic women perceive these needs?

The results of the study support positive answers to both questions. The behaviorally bulimic group (BB) reported both clinically and statistically elevated levels of internalized shame. The significant trend of declining ISS scores from behaviorally bulimic (BB) to behaviorally recovered bulimic (BR) to the non-eating disordered (NED) group supports a relationship between the intensity of bulimic pathology and feelings of internalized shame. Responses to the Relationship Self Inventory (RSI) and to the audiotaped vignettes support the theory that the role of shame in bulimia nervosa appears to be more than a secondary reaction to bulimic symptoms and appears to be intertwined with perceptions of dependency needs and self-reliance.

Intercorrelations between real RSI scale scores and correlations between RSI scale scores and subjects' ISS scores provide evidence supporting the theory that bulimics tend to perceive concepts of autonomy, separateness, and interrelatedness as irreconcilable polar opposites. They appear to have difficulty defining themselves in a way which integrates both concepts of individuation and connection. The responses of the BR group show some of these same patterns. Both the BB and BR groups real RSI scores revealed negative correlations between the Connected Self scale (CS) and the Separate Self scale (SS) that were significantly higher than the NED group. Both the BB and BR groups defined their

ideal self as significantly higher on the Separate Self dimension than the NED group. The BR group did not resemble the NED group as closely as hypothesized. However, BR real RSI responses show less extreme evidence of the difficulties with concepts of separation and connection found in the BB group. This supports the theory that an increased ability to define the self in a way which integrates concepts of connection and individuation is linked to recovery from bulimia nervosa.

Group responses to the audiotaped vignettes provide compelling evidence that bulimics view dependency needs as shameful, significantly more shameful than recovered bulimics or non-eating disordered individuals. The finding that the BR group attributed significantly lower levels of shame to an individual expressing interpersonal needs than did the BB group suggests that a change in the perception of dependency needs is involved in the recovery process. Additionally, trends in the data suggest that in the BB group, the level of eating disordered diagnostic responses is negatively correlated with the shame attributed to dependency needs. This suggests that bulimia itself may be a means of defending against painful feelings of shame. This relationship is not apparent in the BR group. Not only does the BR group attribute less shame to the interpersonal needs characterization, they do not appear to use bingeing, purging, and eating disordered cognitions to modulate their perception of shame in the way the BB group appears to.

APPENDICES

APPENDIX A

Glossary

Behaviorally bulimic group (BB) This group is made up of subjects who presently report recurrent episodes of binge eating (at least two episodes a week for at least three months) and who use vomiting, laxative use, diuretic use, or extreme exercise to "get rid of" food eaten or to lose weight a minimum of two times per month.

Behaviorally recovered bulimic group (BR) This group is made up of subjects who presently do not meet the criteria for inclusion in the behaviorally bulimic group but who report that in the past (more than four months ago) they did meet the criteria.

Non-eating disordered group (NED) This group is made up of the first twenty five subjects (scored at random) who report no history of bingeing or purging behaviors of any kind, who report an ideal weight of no more than five pounds below their present weight, and whose scores on both the "Drive for Thinness" and the "Bulimia" scales of the Eating Disorders Inventory fall below the 50th percentile for female college students (scores of two or less and zero respectively).

APPENDIX B

Taped Vignettes

a) Marla

Interviewer: Okay, we can get started whenever you're ready.

Marla: Alright . . . let's see . . . what kind of person am I? Well, I've always been described as an individualist in my family . . . and I guess that's right. I think that the best way to get something done is do it yourself. I'm pretty independent minded . . .and I enjoy being on my own too. I've always been like that . . like I remember once when I was a little girl I got lost in a department store because I left my mom to find the toy department. And they asked me when they found me why I hadn't just asked someone how to get there, but it seemed to me at the time like I'd just do it on my own . . . and I guess now it's important to me to do things at my own pace and the way I want them done. I mean, ultimately I'm the one I have to please. Right?

Interviewer: So can you tell me how that plays into your relationships?

Marla: Yeah, I think my boyfriend understands that part of me. I think because of that we're really compatible. We're both really busy all the time, and our relationship is the ideal escape from all that . . . I think he's the perfect boyfriend.

Interviewer: Can you tell me what that means?

Marla: Well, I have someone to enjoy my free time with and to relax with. I mean, we both have our own friends and we each have jobs and we have our school stuff, so we don't like, need each other and we don't hassle each other all the time . . . I can't imagine being like that, you know, like those women from the fifties, who relied on their husbands for everything . . . John and I have fun together. But I don't like, rely on him for stuff, we can each take care of ourselves. We have a pretty good time together and that's ideal for me. We understand each other too.

Interviewer: So how would your friends describe you?

Marla: They'd describe me as independent too I think. I mean I have a lot of friends, but I like to spend most of my time by myself. I get my best ideas when I'm by myself .... I like to think things through when I'm alone. I mean, I can talk to my friends, and I do talk to them, but I don't like tell them every little thing that I'm doing all the time. Like last summer I tried out for the swim team and I didn't tell anybody in my house until I made the final cuts. I guess I just didn't feel like I needed their support or encouragement ... I just figured, hey, if I make it I make it.

Interviewer: Do you think this independence of yours affects how you are in school?

Marla: Probably ... yeah, like in class, I guess I'm not one of these people who asks a lot of questions. I mean, I don't really go to professors a lot for help ... You know, I like to go off and try to figure things out on my own. It's kind of a challenge. I enjoy it.

b) Audrey

Interviewer: We can get started whenever you're ready.

Audrey: Okay.

Interviewer: I'll just start by asking you the real general question. What kind of a person do you think that you are and how do you feel that affects how you function in school and in your relationships?

Audrey: ... that's a complicated question ... umm, I'm not sure what you mean by all that but, well, people are important to me. I'm not like Suzy cheerleader or anything, but my friends, you know, having good friends, that is important. I mean I like to be by myself sometimes, but not all the time.

Interviewer: How would your friends describe you?

Audrey: Hopefully as a good friend ... umm ... I have a small group of people that I am pretty close with, people I have known since I was little. It's almost like we're family.

. . I mean they know everything about me and I know all about them. Like last year, when my mom was in the hospital. . .I don't know what I would have done without them. Having people there to comfort me. . . it was horrible. . .I don't know what I would have done without friends there to hug me and let me cry on them and to keep me company through it. . . . . My friends are so great. I mean I really . . .I really respect them. And their opinion means a lot to me. . . .Like my one friend, she graduated last year, and she's been helping me work on my resume. I'm graduating this spring and I'll be looking for a job and it's great to have someone who knows the ropes, who is showing me how to do it right. She was the same major as me so she's been through it.

Interviewer: You said that you have a boyfriend?

Audrey: Yeah, Joe . . . We get along so well together. It's so nice having someone I care about, you know, that much . . . someone I'm close to, who I can rely on and who depends on me. . . If I've had a long day he makes me dinner and I do the same thing for him. And sometimes it feels so good just to be held . . . We help each other out, support each other, give advice. Like I read him the rough drafts of my English papers and he gives me feedback. I just love having someone like him. It's a lot of compromises though, when you have two people with different goals and schedules and stuff. It's more work than not having a boyfriend sometimes. But I think it's worth it. I'm really happy.

Interviewer: And what do you think of school? Do you think that the kind of person you are affects how you are in school?

Audrey: Not really. I do fine in school. I like parts of it (pause) . . .I like smaller classes much better than those huge ones I had my freshman year. It's much easier to get feedback, to ask questions and to make sure I'm understanding. I think school is easier in the last two years because you get to know people better. I have this professor who I've been working with, she's great. This woman is exactly what I would like to be like when I

finally get out of here and start working. And she's been giving me advice on classes and instructors and things like that.

c) Leslie

Interviewer: Okay, let's get started with the general question. What kind of a person do you think you are and how do you feel that affects how you function in school and in your relationships?

Leslie: That's a confusing question . . . I guess I think I'm a happy person. I do well in school. I like what I'm studying. I like writing papers more than I like taking tests . . . I think it's the challenge of being creative. I'm not sure how what kind of person I am affects how I do in school . . . I mean I guess you could say I'm responsible. I get my work done and I turn it in on time, but I'm not a real perfectionist about school. I have a lot of other interests as well. That's what I enjoy about a big school. You can really get lost here if you want to, like you can take a class where you never have to speak to the teacher, or go to a football game and just lose yourself in the crowd . . . or, you know, you can take advantage of opportunities to meet people and get involved with smaller groups. I like having a choice. . .I mean, there are plenty of opportunities to make friends here, but there is a lot of space to be alone if that's what I really want at the moment.

Interviewer: So what are your friendships like?

Leslie: Well, I have friends that I would call really close and I have friends I know well enough to do things with . . . you know?

Interviewer: Do you spend a lot of time with your friends, do you rely on them a lot?

Leslie: Well. . . it really depends. During the school year I don't see my friends at home much. I'm going to parties and stuff on the weekends and hanging out at people's apartments . . . I'm not sure if I rely on them . . . I mean for some things, sure. . .like when my car broke down last week and I had to call my friend to rescue me, or when we

take a class together and we study for the final . . . but in some things I'm real independent. I mean, I know a girl who won't go to the mall by herself, and I'm not like that. I like to do some things alone.

Interviewer: Are you involved in a relationship right now?

Leslie : mmhuh . . .

Interviewer: Can you tell me a little about that?

Leslie : Oh . . . okay. My boyfriend Kevin and I have been going out for a while now and things are really good. I'm really happy. We get along very well. We complement each other. It's so great having someone in your life with lots of the same goals and interests. We both love to go camping in the summer . . . we like the same music, have the same taste in movies. He's a great support in some ways . . . but there are just some things males just don't seem to understand, you know? . . But that's okay. I think I'd go crazy if we were that compatible. My friends and relationships are important to me, but I need my own space and time too . . . I guess I like and I need to keep some things to myself.

APPENDIX C

Pilot Testing Questionnaire

Please rate the following statements as either true or false:

1. This individual needs relationships with others.
2. This individual is autonomous.
3. This individual is dependent on other people.
4. This individual does not need other people.
5. This individual displays a need for touching and/or holding.
6. This individual is independent of other people.
7. This individual does not show a need for other people's approval.
8. This individual showed a need to have someone she can identify with or model herself after.

Scoring:

"True" responses on items 1, 3, 5, 8 are scored one point.
"False" responses on items 2, 4, 6, 7 are scored one point.
Higher scores indicate the presence of interpersonal needs.

APPENDIX D

Measures

1. Demographic items
2. Items 1-60: Relationship Self Inventory "Real"
3. Items 61-120: Relationship Self Inventory "Ideal"
4. Items 121-150: Internalized Shame Scale
5. Items 151-164: Eating Disorders Inventory Bulimia and Drive for Thinness Scales

1. Age at last birthday _____

2. Marital Status (check one)
_____single
_____married
_____divorced, single
_____cohabitating (living with significant other)
_____divorced, remarried
_____separated
_____widowed

3. Marital status of your parents (check one)
_____single
_____married
_____divorced, single
_____divorced but at least one parent has remarried
_____widowed
_____cohabitating (not married but living together)

4. Religion (check one)
_____Catholic
_____Other (_____)
_____Protestant
_____No religious affiliation
_____Jewish

5. How regular are you in your religious observance?
_____Attend regularly
_____Attend occasionally
_____Never attend
_____Does not apply: no religious affiliation
_____Attend rarely

6. Primary ethnic or racial identification (check one)
_____Black/African-American
_____Native American
_____Hispanic
_____Asian
_____White/Caucasian
_____Other_____

7. Your family's estimated gross income for last year (check one)
_____$10,000-20,000
_____$20,000-30,000
_____$30,000-$40,000
_____$40,000-50,000
_____$50,000-$60,000
_____$60,000-$70,000
_____$70,000-$80,000
_____$80,000-$90,000
_____over $90,000

8. Number of people in your family _____
9. Number of people supported by your parents_____.

Are you currently taking any medication prescribed by a physician_____yes
_____no

If yes, please list the medications you are taking and the dosages (if you know them)

_____

_____

_____Have you ever been had any counseling or psychotherapy_____yes
_____no

if yes, was it:
_____individual treatment
_____family therapy
_____couples therapy (marital therapy)
_____therapy group

Please estimate the number of psychotherapy or counseling sessions you attended:
_____individual sessions
_____family therapy sessions
_____couples therapy sessions
_____therapy group sessions

How old were you at the time?_____

Did you seek counseling for: (check all that apply)

_____family problems/problems with parents
_____marital problems
_____depression
_____drug addiction/substance abuse
_____problems with alcohol
_____eating disorder
_____anxiety
_____sleep problems
_____school problems
_____other_____
_____
_____
_____
_____

For the following items, please read each statement CAREFULLY. Decide how much it describes you. Using the following rating scale, circle the most appropriate response.

SCALE
Not at all like me **Very much like me**
1 2 3 4 5

1 2 3 4 5	1. I often try to act on the belief that self-interest is one of the worst problems facing society.
1 2 3 4 5	2. A close friend is someone who will help you whenever you need help and knows that you will help if they need it.
1 2 3 4 5	3. I cannot choose to help someone else if it will hinder my self-development.
1 2 3 4 5	4. I want to be responsible for myself.
1 2 3 4 5	5. In making decisions, I can neglect my own values in order to keep a relationship.
1 2 3 4 5	6. I find it hard to sympathize with people whose misfortunes I believe are due mainly to their shortcomings.
1 2 3 4 5	7. I try to curb my anger for fear of hurting others.
1 2 3 4 5	8. Being unselfish with others is more important than making myself happy.
1 2 3 4 5	9. Loving is like a contract: If its provisions aren't met, you wouldn't love the person any more.
1 2 3 4 5	10. In my everyday life I am guided by the notion of "an eye for an eye and a tooth for a tooth."
1 2 3 4 5	11. I want to learn to stand on my own two feet.
1 2 3 4 5	12. I believe that one of the most important things that parents can teach their children is how to cooperate and live in harmony with others.
1 2 3 4 5	13. I try not to think about the feelings of others when there is a principle at stake.
1 2 3 4 5	14. I don't often do much for others unless they can do some good for me later on.
1 2 3 4 5	15. Activities of care that I perform expand both me and others.
1 2 3 4 5	16. If what I want to do upsets other people, I try to think again to see if I really want to do it.
1 2 3 4 5	17. I do not want others to be responsible for me.

1 2 3 4 5 18. I am guided by the principle of treating others as I want to be treated.

1 2 3 4 5 19. I believe that I have to look out for myself and mine, and let others shift for themselves.

1 2 3 4 5 20. Being unselfish with others is a way I make myself happy.

1 2 3 4 5 21. When a friend traps me with demands and negotiation has not worked, I am likely to end the friendship.

1 2 3 4 5 22. I feel empty if I'm not closely involved with someone else.

1 2 3 4 5 23. Sometimes I have to accept hurting someone else if I am to do the things that are important in my own life.

1 2 3 4 5 24. In order to continue a relationship it has to let both of us grow.

1 2 3 4 5 25. I feel that my development has been shaped more by the persons I care about than by what I do and accomplish.

1 2 3 4 5 26. People who don't work hard to accomplish respectable goals can't expect me to help when they're in trouble.

1 2 3 4 5 27. Relationships are a central part of my identity.

1 2 3 4 5 28. I often keep quiet rather than hurt someone's feelings, even if it means giving a false impression.

1 2 3 4 5 29. If someone offers to do something for me, I should accept the offer even if I really want something else.

1 2 3 4 5 30. The worst thing that could happen in a friendship would be to have my friend reject me.

1 2 3 4 5 31. If I am really sure that what I want to do is right, I do it even if it upsets other people.

1 2 3 4 5 32. Before I can be sure I really care for someone I have to know my true feelings.

1 2 3 4 5 33. What it all boils down to is that the only person I can rely on is myself.

1 2 3 4 5 34. Even though I am sensitive to others' feelings, I make decisions based upon what I feel is best for me.

1 2 3 4 5 35. Even though it's difficult, I have learned to say no to others when I need to take care of myself.

1 2 3 4 5 36. I like to see myself as interconnected with a network of friends.

1 2 3 4 5 37. Those about whom I care deeply are part of who I am.

1 2 3 4 5 38. I accept my obligations and expect others to do the same.

1 2 3 4 5 39. I believe that I must care for myself because others are not responsible for me.

1 2 3 4 5 40. The people whom I admire are those who seem to be in close personal relationships.

1 2 3 4 5 41. It is necessary for me to take responsibility for the effect my actions have on others.

1 2 3 4 5 42. True responsibility involves making sure my needs are cared for as well as the needs of others.

1 2 3 4 5 43. The feelings of others are not relevant when deciding what is right.

1 2 3 4 5 44. If someone asks me for a favor I have a responsibility to think about whether or not I want to do the favor.

1 2 3 4 5 45. I make decisions based upon what I believe is best for me and mine.

1 2 3 4 5 46. Once I've worked out my position on some issue I stick to it.

1 2 3 4 5 47. I believe that in order to survive I must concentrate more on taking care of myself than on taking care of others.

1 2 3 4 5 48. The best way to help someone is to do what they ask even if you don't really want to do it.

1 2 3 4 5 49. Doing things for others makes me happy.

1 2 3 4 5 50. All you really need to do to help someone is to love them.

1 2 3 4 5 51. I deserve the love of others as much as they deserve my love.

1 2 3 4 5 52. You've got to look out for yourself or the demands of circumstances and of other people will eat you up.

1 2 3 4 5 53. I cannot afford to give attention to the opinions of others when I am certain I am correct.

1 2 3 4 5 54. If someone does something for me, I reciprocate by doing something for them.

1 2 3 4 5 55. Caring about other people is important to me.

1 2 3 4 5 56. If other people are going to sacrifice something they want for my sake I want them to understand what they are doing.

1 2 3 4 5 57. When I make a decidion it's important to use my own values to make the right decision.

1 2 3 4 5 58. I try to approach relationships with the same organization and efficiency as I approach my work.

1 2 3 4 5 59. If I am to help another person it is important to me to understand my own motives.

1 2 3 4 5 60. I like to acquire many acquaintances and friends.

Now respond to the following statements. You have seen the statements before, but THIS TIME PLEASE RESPOND AS IF YOU WERE EXACTLY AS YOU WISH. In other words, answer as the "ideal you" or "perfect you" would respond. Please answer each question *very* carefully. PLEASE DO NOT SKIP ANY ITEMS. IF AN ITEM SEEMS HARD TO ANSWER, CHOOSE THE ANSWER WHICH IS MOST APPROPRIATE.

SCALE
Not at all like me **Very much like me**
1 2 3 4 5

1 2 3 4 5	61. I often try to act on the belief that self-interest is one of the worst problems facing society.
1 2 3 4 5	62. A close friend is someone who will help you whenever you need help and knows that you will help if they need it.
1 2 3 4 5	63. I cannot choose to help someone else if it will hinder my self-development.
1 2 3 4 5	64. I want to be responsible for myself.
1 2 3 4 5	65. In making decisions, I can neglect my own values in order to keep a relationship.
1 2 3 4 5	66. I find it hard to sympathize with people whose misfortunes I believe are due mainly to their shortcomings.
1 2 3 4 5	67. I try to curb my anger for fear of hurting others.
1 2 3 4 5	68. Being unselfish with others is more important than making myself happy.
1 2 3 4 5	69. Loving is like a contract: If its provisions aren't met, you wouldn't love the person any more.
1 2 3 4 5	70. In my everyday life I am guided by the notion of "an eye for an eye and a tooth for a tooth."
1 2 3 4 5	71. I want to learn to stand on my own two feet.
1 2 3 4 5	72. I believe that one of the most important things that parents can teach their children is how to cooperate and live in harmony with others.
1 2 3 4 5	73. I try not to think about the feelings of others when there is a principle at stake.
1 2 3 4 5	74. I don't often do much for others unless they can do some good for me later on.
1 2 3 4 5	75. Activities of care that I perform expand both me and others.

1 2 3 4 5 76. If what I want to do upsets other people, I try to think again to see if I really want to do it.

1 2 3 4 5 77. I do not want others to be responsible for me.

1 2 3 4 5 78. I am guided by the principle of treating others as I want to be treated.

1 2 3 4 5 79. I believe that I have to look out for myself and mine, and let others shift for themselves.

1 2 3 4 5 80. Being unselfish with others is a way I make myself happy.

1 2 3 4 5 81. When a friend traps me with demands and negotiation has not worked, I am likely to end the friendship.

1 2 3 4 5 82. I feel empty if I'm not closely involved with someone else.

1 2 3 4 5 83. Sometimes I have to accept hurting someone else if I am to do the things that are important in my own life.

1 2 3 4 5 84. In order to continue a relationship it has to let both of us grow.

1 2 3 4 5 85. I feel that my development has been shaped more by the persons I care about than by what I do and accomplish.

1 2 3 4 5 86. People who don't work hard to accomplish respectable goals can't expect me to help when they're in trouble.

1 2 3 4 5 87. Relationships are a central part of my identity.

1 2 3 4 5 88. I often keep quiet rather than hurt someone's feelings, even if it means giving a false impression.

1 2 3 4 5 89. If someone offers to do something for me, I should accept the offer even if I really want something else.

1 2 3 4 5 90. The worst thing that could happen in a friendship would be to have my friend reject me.

1 2 3 4 5 91. If I am really sure that what I want to do is right, I do it even if it upsets other people.

1 2 3 4 5 92. Before I can be sure I really care for someone I have to know my true feelings.

1 2 3 4 5 93. What it all boils down to is that the only person I can rely on is myself.

1 2 3 4 5 94. Even though I am sensitive to others' feelings, I make decisions based upon what I feel is best for me.

1 2 3 4 5 95. Even though it's difficult, I have learned to say no to others when I need to take care of myself.

1 2 3 4 5 96. I like to see myself as interconnected with a network of friends.

1 2 3 4 5 97. Those about whom I care deeply are part of who I am.

1 2 3 4 5 98. I accept my obligations and expect others to do the same.

1 2 3 4 5 99. I believe that I must care for myself because others are not responsible for me.

1 2 3 4 5 100. The people whom I admire are those who seem to be in close personal relationships.

1 2 3 4 5 101. It is necessary for me to take responsibility for the effect my actions have on others.

1 2 3 4 5 102. True responsibility involves making sure my needs are cared for as well as the needs of others.

1 2 3 4 5 103. The feelings of others are not relevant when deciding what is right.

1 2 3 4 5 104. If someone asks me for a favor I have a responsibility to think about whether or not I want to do the favor.

1 2 3 4 5 105. I make decisions based upon what I believe is best for me and mine.

1 2 3 4 5 106. Once I've worked out my position on some issue I stick to it.

1 2 3 4 5 107. I believe that in order to survive I must concentrate more on taking care of myself than on taking care of others.

1 2 3 4 5 108. The best way to help someone is to do what they ask even if you don't really want to do it.

1 2 3 4 5 109. Doing things for others makes me happy.

1 2 3 4 5 110. All you really need to do to help someone is to love them.

1 2 3 4 5 111. I deserve the love of others as much as they deserve my love.

1 2 3 4 5 112. You've got to look out for yourself or the demands of circumstances and of other people will eat you up.

1 2 3 4 5 113. I cannot afford to give attention to the opinions of others when I am certain I am correct.

1 2 3 4 5 114. If someone does something for me, I reciprocate by doing something for them.

1 2 3 4 5 115. Caring about other people is important to me.

1 2 3 4 5 116. If other people are going to sacrifice something they want for my sake I want them to understand what they are doing.

1 2 3 4 5 117. When I make a decidion it's important to use my own values to make the right decision.

1 2 3 4 5 118. I try to approach relationships with the same organization and efficiency as I approach my work.

1 2 3 4 5 119. If I am to help another person it is important to me to understand my own motives.

1 2 3 4 5 120. I like to acquire many acquaintances and friends.

Below is a list of statements describing feelings or experiences that you may have from time to time or that are familiar to you because you have had these feelings and experiences for a long time. Most of these statements describe feelings and experiences that are generally painful or negative in some way. Some people will seldom or never have had many of these feelings. Everyone has had some of these feelings at some time, but if you find that these statements describe the way you feel a good deal of the time, it can be painful just reading them. Try to be as honest as you can in responding.

Read each statement carefully and circle the number to the left of the item that indicates the frequency with which you find yourself feeling or experiencing what is described in the statement. Use the scale below.
DO NOT OMIT ANY ITEM.

SCALE:
1--NEVER 2--SELDOM 3--SOMETIMES 4--FREQUENTLY
5--ALMOST ALWAYS

1 2 3 4 5 121. I feel like I am never quite good enough.
1 2 3 4 5 122. I feel somehow left out.
1 2 3 4 5 123. I think that people look down on me.
1 2 3 4 5 124. All in all, I am inclined to feel that I am a success.
1 2 3 4 5 125. I scold myself and put myself down.
1 2 3 4 5 126. I feel insecure about others opinions of me.
1 2 3 4 5 127. Compared to other people, I feel like I somehow never measure up.
1 2 3 4 5 128. I see myself as being very small and insignificant.
1 2 3 4 5 129. I feel I have much to be proud of.
1 2 3 4 5 130. I feel intensely inadequate and full of self doubt.
1 2 3 4 5 131. I feel as if I am somehow defective as a person, like there is something basically wrong with me.
1 2 3 4 5 132. When I compare myself to others I am just not as important.
1 2 3 4 5 133. I have an overpowering fear that my faults will be revealed in front of others.
1 2 3 4 5 134. I feel I have a number of good qualities.
1 2 3 4 5 135. I see myself striving for perfection only to continually fall short.
1 2 3 4 5 136. I think others are able to see my defects.
1 2 3 4 5 137. I could beat myself over the head with a club when I make a mistake.

1 2 3 4 5 138. On the whole, I am satisfied with myself.
1 2 3 4 5 139. I would like to shrink away when I make a mistake.
1 2 3 4 5 140. I replay painful events over and over in my mind until I am overwhelmed.
1 2 3 4 5 141. I feel I am a person of worth at least on an equal plane with others.
1 2 3 4 5 142. At times I feel like I will break into a thousand pieces.
1 2 3 4 5 143. I feel as if I have lost control over my body functions and my feelings.
1 2 3 4 5 144. Sometimes I feel no bigger than a pea.
1 2 3 4 5 145. At times I feel so exposed that I wish the earth would open up and swallow me.
1 2 3 4 5 146. I have this painful gap within me that I have not been able to fill.
1 2 3 4 5 147. I feel empty and unfulfilled.
1 2 3 4 5 148. I take a positive attitude toward myself.
1 2 3 4 5 149. My loneliness is more like emptiness.
1 2 3 4 5 150. I always feel like there is something missing.

Please provide the following information. There are no right or wrong answers so try hard to be completely honest in your answers. RESULTS ARE COMPLETELY CONFIDENTIAL. Read each question carefully and circle the letter under the column which applies to you. Please answer each question very carefully.

A=ALWAYS
B=USUALLY
C=OFTEN
D=SOMETIMES
E=RARELY
F=NEVER

151. I eat sweets and carbohydrates without feeling nervous.	A	B	C	D	E	F
152. I eat when I am upset.	A	B	C	D	E	F
153. I think about dieting	A	B	C	D	E	F
154. I stuff myself with food.	A	B	C	D	E	F
155. I feel extremely guilty after overeating	A	B	C	D	E	F
156. I have gone on eating binges where I felt I could not stop.	A	B	C	D	E	F
157. I am terrified of gaining weight.	A	B	C	D	E	F
158. I think about bingeing (overeating).	A	B	C	D	E	F
159. I exaggerate or magnify the importance of weight.	A	B	C	D	E	F
160. I eat moderately in front of others and stuff myself when they're gone	A	B	C	D	E	F
161. I am preoccupied with the desire to be thinner.	A	B	C	D	E	F
162. I have the thought of trying to vomit in order to lose weight.	A	B	C	D	E	F
163. If I gain a pound, I worry that I will keep gaining.	A	B	C	D	E	F
164. I eat or drink in secrecy.	A	B	C	D	E	F

Please answer the following questions by filling in the appropriate blank. Please answer as honestly as you can. Again, <u>all responses are strictly confidential.</u>

165. Your present weight (in pounds) _____
166. Height_____(specify feet and/or inches)
167. Highest past weight_____ (excluding pregnancies)
How long ago was this?_____ months ago
168. Lowest past weight_____
How long ago was this?_____ months ago
169 What do you consider your ideal weight (in pounds)?_____

PLEASE ANSWER THE FOLLOWING QUESTIONS. ALL RESPONSES ARE STRICTLY CONFIDENTIAL (you're almost finished).

A. Have you ever had an episode of eating an amount of food that others would regard as unusually large (a binge) _____yes _____no
(IF NO PLEASE SKIP TO 'B' BELOW)

During the last three months, how often have you typically had an eating binge?
a. I have not binged in the last 3 months
b. Monthly
I usually binge _____ time(s) a month.
c. Weekly
I usually binge _____time(s) a week
d. Daily
I usually binge _____time(s) a day.

At the worst of times, what was your average number of binges per week?
_____binges per week. When was this?_____

B. Have you ever tried to vomit after eating in order to get rid of the food eaten
_____yes _____no (IF NO PLEASE GO TO 'C').

During the last three months, how often have you typically induced vomiting?
a. I have not vomited in the last 3 months
b. Monthly
I usually vomit _____ time(s) a month.
c. Weekly
I usually vomit _____time(s) a week
d. Daily
I usually vomit _____time(s) a day.

At the worst of times, what is the average number of vomiting episodes per week?
_____vomiting episodes per week. When was this?_____

C. Have you ever taken diet pills?
_____yes _____no

If you have taken diet pills, during the last three months, how often have you typically taken diet pills?
a. I have not taken diet pills in the last 3 months
b. Monthly
I usually take diet pills _____ time(s) a month.
c. Weekly
I usually take diet pills _____time(s) a week
d. Daily
I usually take diet pills _____time(s) a day.

D. Have you ever used laxatives to control your weight or "get rid of food"?
_____yes _____no

During the last three months, how often have you been taking laxatives for weight control?

a. I have not taken laxatives in the last 3 months
b. Monthly
   I usually take laxatives _____ time(s) a month.
c. Weekly
   I usually take laxatives _____time(s) a week
d. Daily
   I usually take laxatives _____time(s) a day.

E. Have you ever taken diuretics (water pills) to control your weight?
_____yes _____no
If you have taken diuretics, during the last three months, how often have you typically taken diuretics?
a. I have not taken diuretics in the last 3 months.
b. Monthly
   I usually take diuretics ____ time(s) a month
c. Weekly
   I usually take diuretics ____ time(s) a week
d. Daily
   I usually take diuretics ____ time(s) a day.

THAT'S ALL!!
THANK YOU VERY MUCH FOR YOUR PARTICIPATION!!!

Vignette Response Measure (Part 2)

The following statements or items ask for your opinion. There are no right responses. We are interested in your ideas of what the person you have just heard is like. Please respond to the items as you feel the woman you just heard would respond. Circle the number to the left of the item which indicates the frequency with which you believe the person experiences the described feeling.

Please complete all the items in the order provided. DO NOT OMIT ANY ITEM.

EXAMPLE:
For instance, the first statement is "I feel like I am never quite good enough." Is it your opinion that the subject of the tape feels this way (1)"never" , (2)"seldom", (3)"sometimes", (4)"frequently", or (5)"almost always"?

SCALE:

1--NEVER 2--SELDOM 3--SOMETIMES 4--FREQUENTLY 5--ALMOST ALWAYS

1 2 3 4 5 1. I feel like I am never quite good enough.

1 2 3 4 5 2. I feel somehow left out.

1 2 3 4 5 3. I think that people look down on me.

1 2 3 4 5 4. All in all, I am inclined to feel that I am a success.

1 2 3 4 5 5. I scold myself and put myself down.

1 2 3 4 5 6. I feel insecure about others opinions of me.

1 2 3 4 5 7. Compared to other people, I feel like I somehow never measure up.

1 2 3 4 5 8. I see myself as being very small and insignificant.

1 2 3 4 5 9. I feel I have much to be proud of.

1 2 3 4 5 10. I feel intensely inadequate and full of self doubt.

1 2 3 4 5 11. I feel as if I am somehow defective as a person, like there is something basically wrong with me.

1 2 3 4 5 12. When I compare myself to others I am just not as important.

1 2 3 4 5 13. I have an overpowering fear that my faults will be revealed in front of others.

1 2 3 4 5 14. I feel I have a number of good qualities.

1 2 3 4 5 15. I see myself striving for perfection only to continually fall short.

1 2 3 4 5 16. I think others are able to see my defects.

1 2 3 4 5 17. I could beat myself over the head with a club when I make a mistake.

1 2 3 4 5 18. On the whole, I am satisfied with myself.

1 2 3 4 5 19. I would like to shrink away when I make a mistake.

1 2 3 4 5 20. I replay painful events over and over in my mind until I am overwhelmed.

1 2 3 4 5 21. I feel I am a person of worth at least on an equal plane with others.

1 2 3 4 5 22. At times I feel like I will break into a thousand pieces.

1 2 3 4 5 23. I feel as if I have lost control over my body functions and my feelings.

1 2 3 4 5 24. Sometimes I feel no bigger than a pea.

1 2 3 4 5 25. At times I feel so exposed that I wish the earth would open up and swallow me.

1 2 3 4 5 26. I have this painful gap within me that I have not been able to fill.

1 2 3 4 5 27. I feel empty and unfulfilled.

1 2 3 4 5 28. I take a positive attitude toward myself.

1 2 3 4 5 29. My loneliness is more like emptiness.

1 2 3 4 5 30. I always feel like there is something missing.

APPENDIX E

Consent Forms and Information Forms

Consent Form I (Screening)

Michigan State University
Department of Psychology

DEPARTMENTAL RESEARCH CONSENT FORM

1. I have freely consented to take part in a scientific study being conducted by Melissa McCreery under the supervision of Dr. Bertram Karon.

This research will require that I respond to some statements and answer some questions about myself and about my feelings and experiences

Participation in this experiment usually takes approximately one hour. I understand that I may be asked to return at a later time to participate in an additional one hour experiment for additional research credit.

2. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.

3. I understand that I am free to discontinue my participation in the study at any time without penalty.

4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.

5. I understand that my participation in the study does not guarantee any beneficial results to me.

6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed:_____

Please print name_____

Date_____

Information Sheet I (Screening)

Thank you for your participation. The purpose of this study was to examine differences in a variety of variables such as age, family background, interests and concerns, eating habits, and self orientation. Your responses will be kept strictly confidential and will not be associated with your name in any way.

It is possible that you will be called and asked to return for additional participation at a later time. You are not required to continue your participation if you do not desire. If you are called back and choose to participate you will earn additional credit for your time.

If you have any questions about your participation in this study or would like more information, you may contact myself or Dr. Bertram Karon at 353-5258.

Melissa McCreery

Dr. Bertram Karon

Consent Form II (Vignettes)

Michigan State University
Department of Psychology

DEPARTMENTAL RESEARCH CONSENT FORM

1. I have freely consented to take part in a scientific study being conducted by Melissa McCreery under the supervision of Dr. Bertram Karon.

This research will require that I respond to some statements and answer some questions about myself and about my feelings and experiences. I will also be listening to audio tapes of interviews and giving my opinions about what I think the person I heard is like.

Participation in this experiment usually takes approximately one hour.

2. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.

3. I understand that I am free to discontinue my participation in the study at any time without penalty.

4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.

5. I understand that my participation in the study does not guarantee any beneficial results to me.

6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed:_____

Please print name_____

Date_____

Informational Form II (Vignettes)

Thank you for your participation. The experiment you have just completed was a two part study investigating females' perceptions of interpersonal relationships, especially the aspects of autonomy and dependency. The purpose of this study is to investigate whether or not females' eating habits and feelings about their bodies are related to their self orientation, and to their feelings and perceptions about autonomy and needing other people. An additional component of the study was designed to examine whether any of these dynamics are altered by recovery from an eating disorder.

Participants for this study were selected to represent a broad range of eating behaviors. *Participation in this study does not mean that your eating behaviors are disordered.* If you are concerned about your eating behaviors and attitudes towards food and your body, there are resources available on campus. A partial list is included with this form.

If you have any further questions about this study or would like to talk about issues that it has raised, you may contact myself or Dr. Bertram Karon at the numbers indicated below.

Thank you again for your participation.

Melissa McCreery

Dr. Bertram Karon

APPENDIX F

Prescreened sample: Demographic and descriptive information

Family Income

Income (In thousands)	Frequency	Percent
$10-30	62	9.1
$30-50	156	23.0
$50-70	185	27.2
$70-90	131	19.3
over $90	120	17.6
don't know or missing	26	3.8
Total	680	100.0

Valid Cases: 662
Missing Cases: 18

Religion

Religion	Frequency	Percent
Catholic	281	41.3
Jewish	34	5.0
Protestant	187	27.5
Other	94	13.8
No Religious Affilation	83	12.2
Missing	1	0.1
Total	680	100.0

Valid Cases: 679

Psychotherapy or counseling:

Percentage of subjects who have been in therapy or counseling = 30.6 (n = 208)

Reasons endorsed for seeking counseling or psychotherapy	Frequency	Percent
Problems with alchohol	11	5.3
Anxiety	26	12.5
Depression	58	27.9
Drugs	9	4.3
Eating Disorder	25	12.0
Family Problems	128	61.5
Marital Problems	1	0.5
Other	59	28.4

(Subjects endorsed as many reasons as applied)

APPENDIX G

Descriptive Information by Group

Ethnic Identification by Group:

Group	African American	Asian	Caucasian	Latin American	Other	Row total
BB	n = 1 4.3%	n = 1 4.3%	n = 20 87.0%	n = 1 4.3%	n = 0 0.0%	n = 23
BR	n = 1 3.3%	n = 0 0.0%	n = 28 93.3%	n = 0 0.0%	n = 1 3.3%	n = 30
NED	n = 2 8.0%	n = 3 12.0%	n = 19 76.0%	n = 1 4.0%	n = 0 0.0%	n = 25

Family Income:

	Income (in thousands of dollars)					
Group	10-30	30-50	50-70	70-90	Over 90	Don't know
BB	n = 5 22.7%	n = 2 9.1%	n = 7 31.8%	n = 3 13.6%	n = 5 22.7%	n = 0 0.0%
BR	n = 3 10.0%	n = 6 20.0%	n = 5 16.6%	n = 4 13.4%	n = 10 33.3%	n = 2 6.7%
NED	n = 0 0.0%	n = 7 29.2%	n = 8 33.3%	n = 7 29.2%	n = 2 8.3%	n = 0 0.0%

(Two individuals, 1 BB and 1 NED did not respond)

Religious Preference:

	Religion				
Group	Catholic	Jewish	Protestant	Other	No Affiliation
BB	n = 10 43.5%	n = 3 13.0%	n = 4 17.4%	n = 4 17.4%	n = 2 8.7%
BR	n = 10 33.3%	n = 3 10.0%	n = 6 20.0%	n = 4 13.3%	n = 7 23.3%
NED	n = 7 29.2%	n = 1 4.2%	n = 10 41.7%	n = 3 12.5%	n = 3 12.5%

APPENDIX H

Descriptions of group members (BB and BR groups)

BB Group:

Age	Current Bingeing (monthly)	Vomiting Episodes (monthly)	Laxative Use* (monthly)	Diet Pills (monthly)	Diuretics (monthly)	Exercise frequency* (monthly)	Length of exercise period (minutes)
18.00	8.00	0 .00	24.00	0.00	8.00	15.00	60.00
19.00	8.00	5.00	0.00	0.00	0.00	2.50	90.00
18.00	24.00	2.00	0.00	0.00	0.00	25.00	50.00
18.00	20.00	10.00	0.00	0.00	0.00	12.00	120.00
18.00	16.00	0.00	0.00	0.00	0.00	30.00	90.00
20.00	16.00	4.00	0.00	0.00	0.00	20.00	40.00
18.00	20.00	20.00	16.00	30.00	0.00	100.00	60.00
18.00	8.00	3.00	0.00	0.00	0.00	90.00	120.00
18.00	8.00	2.00	0.00	0.00	0.00	8.00	52.50
18.00	8.00	12.00	0.00	35.00	0.00	5.00	45.00
17.00	8.00	4.00	0.00	30.00	0.00	30.00	60.00
19.00	16.00	3.00	0.00	0.00	0.00	0.00	0.00
18.00	20.00	0.00	5.00	2.00	0.00	8.00	30.00
18.00	8.00	1.00	0.00	0.00	0.00	31.00	45.00
19.00	12.00	1.00	0.00	0.00	0.00	60.00	35.00
18.00	20.00	10.00	25.00	0.00	0.00	25.00	45.00
20.00	16.00	48.00	0.00	0.00	0.00	16.00	120.00
18.00	8.00	2.00	0.00	0.00	0.00	3.00	90.00
20.00	28.00	25.00	0.00	0.00	0.00	0.00	0.00
19.00	8.00	1.00	0.00	15.00	0.00	30.00	37.50
18.00	8.00	12.00	0.00	0.00	0.00	12.00	45.00
18.00	12.00	60.00	0.00	0.00	0.00	12.00	45.00
20.00	12.00	4.00	0.00	0.00	0.00	0.00	0.00

*Laxative use refers to laxatives used for the purpose of weight control.
*Exercise refers to exercise for the purpose of burning off or "getting rid of" large quantities of food eaten (or binges).

BR Group:

Age	Current Bingeing (monthly)	Vomiting Episodes (monthly)	Laxative Use* (monthly)	Diet Pills (monthly)	Diuretics (monthly)	Exercise frequency* (monthly)	Length of exercise period
18.00	4.00	1.00	0.00	0.00	0.00	5.00	30.00
18.00	4.50	1.00	0.00	0.00	0.00	2.00	120.00
18.00	2.00	1.00	0.00	0.00	0.00	13.00	60.00
18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.00	2.00	0.00	0.00	0.00	0.00	20.00	60.00
18.00	0.00	0.00	0.00	0.00	0.00	4.50	45.00
19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.00	4.00	1.00	0.00	30.00	0.00	11.50	90.00
18.00	0.00	0.00	0.00	60.00	0.00	3.00	120.00
18.00	4.00	4.00	0.00	0.00	0.00	8.00	25.00
18.00	0.00	0.00	0.00	0.00	0.00	5.00	60.00
19.00	3.00	0.00	0.00	0.00	0.00	1.00	35.00
20.00	2.00	3.00	0.00	4.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.00	1.00	10.00	0.00	0.00	0.00	5.00	30.00
18.00	0.00	0.00	0.00	20.00	0.00	4.00	120.00
19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	1.00	1.00	0.00	0.00	0.00	2.00	120.00
19.00	0.00	0.00	0.00	0.00	0.00	3.00	60.00
18.00	1.00	1.00	0.00	1.00	0.00	1.00	60.00
22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00	.	0.00	0.00	0.00
18.00	2.00	0.00	0.00	0.00	0.00	2.00	30.00
19.00	0.00	0.00	0.00	0.00	0.00	60.00	60.00
19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	3.00	1.00	0.00	0.00	0.00	0.00	0.00
18.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	2.00	0.00	0.00	0.00	0.00	3.00	60.00

*Laxative use refers to laxatives used for the purpose of weight control.

BR Group:

BMI score	Real - Ideal BMI	Bulimia (EDI)	DFT (EDI)	Number of Therapy Sessions
22.85	.88	.00	6.00	.
28.07	4.95	21.00	19.00	40.00
20.02	2.40	4.00	21.00	.
16.69	.51	2.00	16.00	.
20.56	1.23	3.00	11.00	.
21.09	2.64	6.00	13.00	60.00
25.03	2.89	1.00	10.00	15.00
19.31	1.96	14.00	19.00	.
20.02	1.60	1.00	20.00	.
22.63	3.77	20.00	18.00	.
25.54	4.26	6.00	11.67	.
20.98	2.33	3.00	8.00	.
21.30	2.88	4.00	10.00	.
20.64	1.65	0.00	5.00	.
19.42	1.63	2.00	2.00	15.00
23.31	3.11	9.00	18.00	61.00
21.97	1.76	1.00	2.00	156.00
19.61	1.51	2.00	19.00	.
18.81	0.80	1.00	7.00	52.00
22.99	1.70	1.00	18.00	.
23.04	0.54	0.00	0.00	.
27.50	1.49	2.00	6.00	50.00
21.12	1.51	0.00	6.00	.
17.87	1.55	5.00	1.00	.
20.81	2.60	1.00	14.00	37.50
37.97	17.33	7.00	14.00	.
21.75	2.33	1.00	12.83	30.00
25.03	2.89	6.00	21.00	26.00
23.43	1.87	6.00	11.00	.
27.97	6.68	12.00	20.00	1.00

BB Group:

BMI score	Real - Ideal BMI	Bulimia (EDI)	DFT (EDI)	Number of Therapy Sessions
20.97	1.32	10.00	16.00	.
22.42	2.40	7.00	18.00	.
20.21	0.88	12.00	19.00	.
20.21	1.76	18.00	18.00	.
.	.	0.00	17.00	4.00
22.65	1.36	7.00	20.00	83.00
20.21	1.76	18.00	21.00	70.00
19.33	0.88	3.00	20.00	52.00
20.32	2.18	13.00	20.00	1.00
24.08	5.44	2.00	19.00	.
20.99	2.25	14.00	21.00	12.00
24.86	6.99	4.00	21.00	2.00
22.68	3.18	20.00	19.00	35.00
21.56	2.81	11.00	14.00	.
18.11	1.34	3.00	18.00	.
20.26	0.68	0.00	4.00	.
20.87	0.91	12.00	20.00	260.00
29.80	7.66	14.00	15.00	396.00
19.49	0.36	13.00	21.00	.
19.33	0.88	5.00	20.00	1.00
21.31	1.94	7.00	17.00	.
25.47	5.02	13.00	20.00	1.00
21.14	3.25	7.00	19.00	4.00

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