Anorexia nervosa: An exploration of early- and later-onset

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ANOREXIA NERVOSA: AN EXPLORATION OF
EARLY- AND LATER-ONSET

by

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Bachelor of Arts
University of California, Santa Barbara
1994

A thesis submitted in partial fulfillment
of the requirements for the degree of

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ABSTRACT

Anorexia Nervosa: An Exploration of Early- and Later-Onset

by

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Children with anorexia nervosa have often been overlooked or misdiagnosed because of the lack of understanding and clarity surrounding early onset. This study was aimed to help clarify ambiguities by exploring the similarities and differences of early- and later-onset anorexia nervosa. Results from case studies of a female child, adolescent, and adult diagnosed with anorexia nervosa are presented. Findings from the case studies indicate several similarities between the two onsets such as comparable demographic characteristics, diagnostic features, symptoms of associated mental disorders, personality characteristics, and etiological factors. Findings also infer some differences that include variance in prognoses, severity of physical complications, levels of self-esteem, and clinical presentation. Implications for social work and future research are also discussed.
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INTRODUCTION

Scope of the Problem

Within the past 20 to 30 years, society has placed a tremendous amount of importance on appearance and body image (Gordon, 1991). It has pushed ideals of beauty and thinness. It has also glorified extremely thin models through the media and mass fashion. In addition, society has introduced a realm of dieting techniques and even plastic surgery to pressure people to obtain perfect bodies (Minnes, Senders, & Singer, 1993; Myers & Biocca, 1992; Waller, Hamilton, & Shaw, 1992). Such ideals have influenced individuals to become preoccupied with thinness. They have encouraged people to engage in crash diets, fasting, and excessive exercise (Greenfeld, Quinlan, Harding, Lass, & Bliss, 1987). Such ideals have also played a critical role in the increase of eating disorders, such as anorexia nervosa (Gordon, 1991).

Anorexia nervosa is characterized as a disturbance in eating behavior that results in a significant failure to maintain a normal body weight. It develops from a distorted attitude toward weight, food, and fatness and can result in serious malnutrition and grave medical conditions (Crisp, 1980; Hsu, 1990).

Anorexia nervosa commonly develops among White adolescent and young adult women from high social classes. It is now estimated that approximately .5%-1% of
females between the ages of twelve and twenty-five years meet the full criteria for anorexia nervosa (American Psychiatric Association, 1994). Five to ten percent of female adolescents exhibit milder forms of the disorder (Blackman, 1996).

Although anorexia nervosa is more common among White adolescent and young adult women from high socioeconomic status, the disorder is becoming more common among males, older adults, ethnic minorities, and lower socioeconomic groups (Byrant-Waugh & Lask, 1995). Unfortunately, the disorder is also becoming more prevalent among children (Hodes, 1993).

Although no exact estimates of the epidemiology of childhood, or early-onset, anorexia nervosa exist (Casper, 1995), there are indicators that more children have an increased risk of developing the disorder. Numerous studies have reported an increase in the number of children who claim to be dissatisfied with their bodies (Rolland, Farnill, & Griffiths, 1997; Salmons, Lewis, Rogers, Gatherer, & Booth, 1988). Many studies have also reported an increase of children who exhibit a fear of becoming fat and diet to avoid gaining additional weight (Casper, 1995). As reported by Hill and Robinson (1991), such dieting concerns translate into dieting behavior and future clinical eating problems.

When children develop anorexia nervosa, the consequences are more debilitating in comparison to adolescents and adults. Because children have a lower proportion of body fat than adults, for instance, children with anorexia nervosa tend to suffer greater physiological effects. They tend to suffer from greater emaciation, growth impairment, dehydration, physiological decompensation, primary amenorrhea (in females), delayed sexual maturation, and an increased risk of death (Fosson, de Bruyn, & Thomas, 1993).
Many times, children with anorexia nervosa also endure greater emotional and psychological consequences such as depression, lethargy, demoralization, and anxiety (Casper, 1995).

Because the side effects of early-onset anorexia nervosa can be very severe, it is important to be familiar with the warning signals of the disorder so that it may be treated in its early stages. Unfortunately, however, research about early-onset anorexia nervosa is scarce. Due to such limited research, early-onset anorexia nervosa has, many times, been erroneously equated with anorexia nervosa among adolescents and adults. Similarities and differences among child, adolescent, and adult onset anorexia nervosa remain unclear. Because of such vagueness, it has been argued that many children with anorexia nervosa have been substantially overlooked by parents, teachers, practitioners, and other people who come in contact with them frequently (Fosson, Knibbs, Bryant-Waugh, & Lask, 1987; Lask & Bryant-Waugh, 1992). Overlooking any child may result in grave consequences.

**Significance of Study**

The purpose of this thesis is to add to the limited research about anorexia nervosa among children and explore its similarities and differences in comparison to the disorder among adolescents and adults. To do so, the thesis will pose case studies that examine the life history, onset, treatment, and prognosis of three individuals who vary in age and have been diagnosed with anorexia nervosa. Results from personal interviews with the three subjects will be presented. Details from interviews with members of their family
and/or their therapists will be included as well. Relevant information from the
individuals' existing case records will also be incorporated.

It is anticipated this thesis will provide researchers, parents, teachers,
practitioners, and others in helping professions an enriched understanding about anorexia
nervosa, especially among children. Such an understanding will afford insight to
improve the detection, as well as treatment, of such a potentially devastating disorder.
CHAPTER 2

LITERATURE REVIEW

Historical Background

Descriptive accounts of what may have been anorexia nervosa can be traced back to the medieval times. Such accounts rarely described children with the disorder since such an early onset has only recently been examined. Instead, the accounts generally described adolescents and adults who restricted their food intake. The first descriptions are of female saints who abstained from food and drink to demonstrate their religious piety. The saints' lack of appetite was attributed to miracles and spiritual forces. It was perceived as acceptable (Minnes et al., 1993). Abstinence was not viewed as a medical problem until the seventeenth century. During that time, Richard Morton published a magnum opus in 1689. His publication was titled "Phthisiologia seu Exercitationes de Phthisi." It was later translated into English in 1694 as "Phythisiologia: Or a Treatise of Consumptions." It described the course of emaciation of two patients and was perhaps the first medical account of anorexia nervosa (Bliss & Branch, 1960). Other similar accounts of what may have been anorexia nervosa followed Morton's publication. They included cases written by Robert Whytt in 1767 and De Valangin in 1768 (Silverman, 1997).
In the nineteenth century, further developments were made concerning the definition and treatment of anorexia nervosa. In 1860, Dr. Louis-Victor Marcé published a report that described the illness as psychiatric, rather than physical. In 1873, Charles Laseque published an article that identified many common factors and symptoms of patients with the disorder. In particular, he reported the illness most likely occurred in females between the ages of 15 and 20. He also reported the onset most likely occurred after an emotional, upsetting life event. In 1874, Sir William Withey Gull coined the term “anorexia nervosa” for the first time in his paper that described case histories of four women with the disorder. Gull derived “anorexia” from the Greek phrase “loss of appetite” and “nervosa” from the Latin word “nervus.” In his paper, Gull reported his observations of anorectic patients exhibiting extreme restlessness and perverse mental states. He also reported common medical features he had detected among the four women. Such features included amenorrhea, constipation, bradycardia, emaciation, low body temperature, and peripheral edema (Blackman, 1996; Hsu, 1990; Minnes et al., 1993; Silverman, 1997).

By the first half of the twentieth century, many accounts of anorexia nervosa (most of which described adolescents or adults with the disorder) continued to be published and its conception was slowly being established. In particular, anorexia nervosa was gradually being understood as a psychological disturbance, rather than a mystical or medical condition. Unfortunately, however, confusion over the concept arose in 1914 when Morris Simmonds published a paper that attributed anorexia nervosa to pituitary pathology. This paper led to endocrinological approaches to conceptualizing...
and treating anorexia nervosa (Hsu, 1990). It was not until 1930 that the confusion cleared and anorexia nervosa was again attributed to psychiatric factors. Such clarification was credited to Berkman (1930) who reported observations that the physiological symptoms of anorexia nervosa were secondary to its psychological disturbances. Berkman also reported that such psychological disturbances were treatable with psychotherapy. Following the publication of Berkman, John A. Ryle (1936a) also published a very influential account of anorexia nervosa. It was perhaps the most clinical account ever written. It presented detailed descriptions of anorexia nervosa and emphasized the psychiatric nature of the disorder (Silverman, 1997).

Despite the continued progress that researchers had made to concretely formulate the concept of anorexia nervosa, major advances were not made until thirty to forty years ago. Prior to the 1960’s, anorexia nervosa was overgeneralized to include anyone who refused to eat. No regard was given as to why the person refused to eat. No distinguishing criterion existed to differentiate anorexia nervosa from other illnesses that led to similar malnutrition (Hsu, 1990). Three individuals were very instrumental in clarifying and defining the meaning of anorexia nervosa. These three were Hilde Bruch (1962, 1973, 1978), Arthur Crisp (1967, 1980), and Gerald Russell (1970). Separately, they contributed to the idea that people with anorexia nervosa refused to eat, not because of a loss of appetite, but because of a fear of fatness and a distorted body image. Moreover, they suggested that anorexia nervosa symbolized a battle for independence, control, and self-worth (Hsu, 1990; Minnes et al., 1993; Silverman, 1997).
Diagnostic and Clinical Features

Today’s understanding and awareness of anorexia nervosa is highly influenced by the current issue of the Diagnostic and Statistic Manual of Mental Disorders (DSM-IV) (Blackman, 1996). This manual contains the most widely used set of diagnostic criteria for anorexia nervosa (American Psychiatric Association, 1994). According to the criteria, individuals with anorexia nervosa exhibit four diagnostic features, regardless of their age. The first is the refusal to maintain a body weight that is normal for one’s age and height. It has been suggested that anyone who falls below 85% of the normal range is underweight. The second feature exhibited by individuals with anorexia nervosa is the intense fear of gaining weight or becoming fat, even though they may be underweight. This fear is said to worsen as anorectic individuals continue to lose weight. The third feature is the disturbance in the way people with anorexia nervosa experience or perceive their body weight, size, or shape. It has been suggested that such a disturbance in body image causes some people with anorexia nervosa to view themselves as globally overweight. It causes others to be concerned with only certain parts of their body such as their thighs, buttocks, and abdomen. Unfortunately, their perception of their body weight, size, and shape greatly influences their self-esteem and, therefore, they are determined to lose weight in order to become their ideal self. In losing weight, individuals with anorexia nervosa ignore the serious medical complications that accompany a malnourished state. One such complication, which is the last diagnostic criteria, is the absence of at least three consecutive menstrual cycles in postmenarcheal
females (American Psychiatric Association, 1994; Blackman, 1996; Bryant-Waugh & Lask, 1995).

In addition to the above, it has been suggested that all anorectic individuals fall into two categories concerning how they control their weight. Some are the restricting type who control their weight through dieting, fasting, and excessive exercise. They do not engage in any binge-eating or purging. Others are the binge-eating, purging type who regularly engage in binge-eating and/or purging at least weekly during their course of anorexia nervosa. Such individuals may purge through induced vomiting, or the misuse of laxatives, diuretics, or enemas (American Psychiatric Association, 1994; Bryant-Waugh & Lask 1995).

Although the DSM-IV suggests the above criteria apply to people of all ages, it has been argued that such criteria may have some limitations when applied to children. It has been suggested that anorectic children may exhibit some different symptoms in comparison to older adolescents and adults with the disorder (Hodes, 1993). Moreover, it has been suggested that the clinical presentation of children with anorexia nervosa varies more than their older counterparts (Treasure & Thompson, 1988). Such variation may cause a strict set of diagnostic criteria to overlook some children with the disorder (Bryant-Waugh & Kaminski, 1993). For example, studies report that children with anorexia nervosa may exhibit significant overactive behavior, rather than excessive exercise (Casper, 1995). Studies have also reported that children with anorexia nervosa, especially those with a pre-pubertal onset, may engage in severe abstinence, binge-eating, laxative abuse, and vomiting less than adolescents and adults with the disorder (Gowers.
Crisp, Joughin, & Bhat, 1991; Margo, 1985; Treasure & Thompson, 1988). The relevance of body image disturbance among children with the disorder has also been argued to vary (Gardner, Urrutia, Morrell, Watson, & Sandoval, 1990; Gralen, Levine, Smolak, & Mumen, 1990).

Because of such differences, some researchers have suggested the use of a different set of diagnostic criteria for children. Russell (1985), for instance, developed a special set of criteria for early-onset anorexia nervosa that was later incorporated into ICD 10 (Hodes, 1993) (see Appendix A-1). Lask and Bryant-Waugh (1986), likewise, modified Russell’s criteria and designed yet another set of criteria for early-onset anorexia nervosa that was named the “Great Ormond Street Diagnostic Checklist” (see Appendix A-2). Although such diagnostic criteria exist within the field of research, it has yet to be widely utilized within the clinical context (Bryant-Waugh & Kaminski, 1993).

Physical Aspects

The limited existing research has suggested that, upon examination, children with anorexia nervosa many times give common excuses for not eating. Such excuses include feelings of nausea, abdominal pain, difficulty swallowing, stomach fullness, constipation, dizziness, and fainting spells (Hodes, 1993; Fosson, Knibbs, Bryant-Waugh, & Lask, 1987). It has also been suggested that children with anorexia nervosa present with many similar features as manifested by adolescents and adults with the disorder. Such features include a wasted appearance, with thin arms and legs and protruding joints. Features also embody sunken eyes, angular facial features, lanugo hair, cold hands and feet, hair loss,
and dry, rough, discolored skin. Other features include deep breathing, sometimes with the sweet smell of acetone, slow and weak pulse, and low blood pressure. Still other features encompass diminished physical strength, and eroded and decayed teeth from gastric acid, if self-induced vomiting is involved (American Psychiatric Association, 1994; Bryant-Waugh & Lask, 1995; Crisp, 1980; Hsu, 1990; Lask & Bryant-Waugh, 1993; Thurston, 1992).

Serious medical complications are also very common during the course of anorexia nervosa. The majority of medical complications are the results of starvation and dehydration. The greater the emaciation, the greater the physiological effects (Lask & Bryant-Waugh, 1993). Unfortunately, children have a lower proportion of body fat than adults. Therefore, children with loss of weight in similar proportion to adults tend to suffer from greater physiological effects (Hodes, 1993). Children with a pre-pubertal onset tend to become even more emaciated and therefore experience even more dangerous physical complications than those with a post-pubertal onset (Gowers et al., 1991).

According to some reports, the physical complications that children with anorexia nervosa may experience include cardiovascular complications. Irregular ventricular contractions and congestive heart failure often occur, and are sometimes fatal. Bradycardia and electrocardiogram abnormalities are also very common, as well as hypotension and hypothermia (American Psychiatric Association, 1994; Fosson, de Bruyn, & Thomas, 1993). Other complications involve gastrointestinal problems. Although rare, children with anorexia nervosa may experience an esophageal or gastric
rupture, or an inflammation of the pancreas that may, likewise, be fatal (Fosson et al., 1993).

Another physical complication that tends to be more pronounced among children with anorexia nervosa, in comparison to their older counterparts, is growth impairment. Because adequate nutrition during childhood years plays a significant role in one’s ultimate adult height, any caloric deficiency or self-starvation during that period can adversely slow and possibly temporarily arrest the development of long bones (Casper, 1995; Gowers et al., 1991; Fosson et al., 1993; Treasure & Thompson, 1988). Whether ultimate linear growth is stunted following years of recovery is questionable. Studies have monitored the growth development of individuals with early-onset anorexia nervosa and have reported mixed results. Some have revealed that individuals with a history of early-onset anorexia nervosa rarely reach an average height. Others have revealed the opposite (Casper, 1995; Lask & Bryant-Waugh, 1993).

Another common physical complication that, likewise, results from self-starvation is the depletion of energy reserves. Unfortunately, this process is typically accelerated among children with anorexia nervosa because of their lower percentage of body fat (Hodes, 1993). During fasts, fat stores are broken down and used as energy. Once the fat stores are depleted the brain slowly converts muscle protein and strength into glucose for energy which, of course, leads to physiological decompensation. The process of muscle cell conversion continues until all energy reserves are exhausted. Once all energy reserves are expended, vital functions fail and death follows (Fosson et al., 1993).
Dehydration is another common complication among individuals with anorexia nervosa. Often, it can lead to renal failure and cardiovascular shock and death (American Psychiatric Association, 1994; Fosson et al., 1993). It develops from abnormal fluid losses, such as vomiting, and insufficient fluid intake. Like the other complications, dehydration is more pronounced among children with the disorder because of children’s high daily turnover of fluids (Fosson et al., 1993).

Another physical complication of anorexia nervosa includes delayed sexual maturation. Among pre-menarcheal girls, malnutrition and significant weight loss retards pubertal changes and prevents menarche from occurring (primary amenorrhea). Among post-menarcheal females, the menstrual cycle is disrupted (secondary amenorrhea) and pubertal changes are reversed. Mature breasts and pelvic contours are lost, and pubic hair becomes discolored, unrefined, or scarce (Casper, 1995; Fosson et al., 1993; Treasure & Thompson, 1988). Among pre- and post-pubertal boys, pubertal changes characteristic of males are, likewise, retarded or reversed (Hsu, 1990; Treasure & Thompson, 1988). Whether such delayed sexual maturation has any long-term consequences on fertility is unknown. Some studies have reported that females with a history of anorexia nervosa continue to have amenorrhea. Other studies have reported that females with a history of anorexia nervosa have either irregular or regular menstruation. The results have been mixed (Fosson et al., 1993; Treasure & Thompson, 1988).

In addition to the above, imaging and laboratory findings have described physical and biochemical changes in individuals with anorexia nervosa. Although some of the imaging findings have related specifically to children, very few of the laboratory findings
have (Fosson et al., 1993). Imaging findings have revealed an immaturity or regression of uterine and ovarian development among females with anorexia nervosa. Imaging has also revealed a decrease in size of the cerebral cortex, as well as an increase in the ventricular-brain ratio (American Psychiatric Association, 1994; Fosson et al., 1993). In regards to laboratory investigations, findings have suggested that liver enzymes and plasma growth hormones are often raised. On the other hand, hemoglobin, white blood cells, serum potassium and plasma proteins are often lowered. Plasma gonadotrophins, plasma zinc, and serum iron are, likewise, lowered. Finally, blood urea has been shown to be variable (Fosson et al., 1993; Hsu, 1990).

Associated Mental Disorders

Studies have revealed that individuals with anorexia nervosa often times exhibit features of other mental disorders. Most of these studies examined anorexia nervosa in general. There have been very few studies that focused specifically on early-onset anorexia nervosa. The most common reported disorder that people, including children, with anorexia nervosa meet criteria for is depression (Fosson et al., 1987; Lask & Bryant-Waugh, 1992; Minnes et al., 1993). Depressive symptoms commonly seen among individuals with anorexia nervosa include depressed mood, low self-esteem, social withdrawal, sleep disturbance, irritability, and diminished interest in activities such as sex (American Psychiatric Association, 1994; Hsu, 1990; Minnes et al., 1993). Suicidal ideation and attempts are also common. Several studies have examined the mortality rate of individuals with anorexia nervosa and have revealed that a large percentage of the deaths were the result of suicide (Patton, 1988).
Obsessive compulsive features have also been found to co-exist in individuals with anorexia nervosa. Such features include preoccupied thoughts about food, especially about food content and mealtimes. They also embody ritualistic or compulsive behaviors, such as collecting recipes and hoarding food. Rituals such as cutting food into small pieces, moving food around on the plate, and eating in isolation may also be observed (Crisp, 1980; Thurston, 1992). Obsessive-compulsive behavior unrelated to food can also occur at times. Examples of such behavior include hand washing and checking (American Psychiatric Association, 1994; Minnes et al., 1993).

Although many people with anorexia nervosa exhibit obsessive-compulsive features, unlike depression, it is unclear as to how many warrant the actual secondary diagnosis of obsessive-compulsive disorder (Hsu, 1990). According to the DSM-IV (American Psychiatric Association, 1994), an additional diagnosis can only be justified if the person with anorexia nervosa exhibits obsessions and compulsions unrelated to food, body shape, or weight. Following such criteria, studies have reported that obsessive-compulsive disorders are rarely diagnosed among children with anorexia nervosa. According to Fosson et al. (1987), only a substantial minority of children with anorexia nervosa exhibit obsessions and compulsion unrelated to food.

Other disorders that warrant similar debate include social phobia and other anxiety disorders. Intense social anxiety is often experienced by an individual with anorexia nervosa. Such anxiety is usually related to concerns over body weight and eating rituals, and often times leads to social isolation. For instance, individuals with anorexia nervosa may experience anxiety in fear of others disrupting certain feeding
rituals or forcing them to eat (Minnes et al., 1993). In addition, children with anorexia nervosa may also experience acute anxiety about pubertal development, or sexual experiences if they are post-pubertal (Gowers et al., 1991; Jacobs & Isaacs, 1986).

Like obsessive-compulsive disorders, however, it is questionable as to when a secondary diagnosis is applicable. Studies have presented conflicting reports as to whether social phobias and other anxiety disorders are independent of anorexia nervosa, or part of its sequelae (Hsu, 1990; Minnes et al., 1993).

Aside from the above, there are features of other mental disorders that are observed less frequently among individuals with anorexia nervosa. Such mental disorders include schizophrenia and other affective disorders (Hsu, 1990). Impulse-control problems are also sometimes observed among individuals with the binge-eating/purging type of anorexia nervosa. Such individuals are more likely to abuse alcohol and/or drugs, display mood lability, and be sexually active. Symptoms of oppositional defiant disorder are, likewise, found among some children with anorexia nervosa (Atkins & Silber, 1990). Such children are easily annoyed by others and demonstrate hostile, angry behavior towards others (American Psychiatric Association, 1994).

Common Personality Characteristics

In regards to personality characteristics, studies have suggested that children with anorexia nervosa typically exhibit many of the same characteristics as adolescents and adults with the disorder. Such characteristics include a high degree of compliance (Casper, 1995). Individuals with anorexia nervosa are often described by their parents as
wonderful children who are willing to do what is asked and never gripe or whine. They aim to please others and avoid conflict so that others will approve of them. They even deny feelings of frustration and anger so as not to upset other people (Thurstin, 1992).

High achievement orientation and perfectionism are, likewise, common characteristics among individuals with anorexia nervosa (Casper, 1995; Hsu, 1990). Children with the disorder are commonly devoted to school work and recreational activities and want to do their best at whatever they are doing. Such perfectionism translates into their personal appearance as well. They strive to achieve an ideal, perfect body, becoming flustered over the most minor flaws (Thurstin, 1992).

Despite their high achievement orientation, however, individuals, including children, with anorexia nervosa tend to lack any sense of pleasure and enjoyment. They carry a strong belief that they are not worthy of pleasure. Their perfectionism influences them to be highly critical of themselves and they feel unsatisfied with anything they accomplish (Casper, 1995). They feel a sense of ineffectiveness, uncertainty, and a lack of independence (Hsu, 1990).

According to studies, individuals with anorexia nervosa seek to make up for such deficiencies by attempting to control their environment. They are inclined to control their emotions and display very inflexible, rigid thinking patterns. They also lack social spontaneity and aim to avoid unwanted stimuli. Those with the binge-eating/purging type of anorexia nervosa, however, differ somewhat. They display less self-control, greater social spontaneity, and greater flexibility in their thinking patterns (American Psychiatric Association, 1994; Hsu, 1990).
Unfortunately, the above characteristics can sometimes interfere with interpersonal relationships and daily functioning to such an extent that they may be classified as a personality disorder (Minnes et al., 1993). Common personality disorders that have been diagnosed among individuals with anorexia nervosa include avoidant, passive-aggressive, compulsive, and dependent personality disorders (Piran, Lerner, Garfinkel, Kennedy, & Brouillette, 1988). As with some associated mental disorders, studies have questioned why anorexia nervosa and personality disorders are prone to coexist. The results have been mixed. Some have reported that personality disorders predispose someone to develop anorexia nervosa. Others have reported the opposite and have suggested that personality disorders are simply a result of anorexia nervosa (Minnes et al., 1993).

**Etiology**

Despite extensive literature, the causes of anorexia nervosa have remained unclear. There is much doubt as to whether any of the suspected factors are causes of the disorder or simply consequences of it (Lask & Bryant-Waugh, 1992). Moreover, little is known about any differences in etiology between early- and late-onset anorexia nervosa. Most of the existing literature caters to eating disorders in general (Wren & Lask, 1993). What is known, is that there is no single cause of anorexia nervosa. Instead, a "multifactorial" theory has been adopted that views the onset of anorexia nervosa as being caused by a variety of interacting factors (Hsu, 1990, p. 77). Such factors include predisposing factors, precipitating factors, and perpetuating factors. Predisposing factors are those pre-existing conditions, or contexts, that make it more likely for a disorder to
They may encompass biological factors, individual characteristics, family characteristics, a history of sexual abuse, and sociocultural influences (Lask & Bryant-Waugh, 1992). Whereas as predisposing factors are the factors that make it more likely for someone to develop anorexia nervosa, precipitating factors are the events that trigger the disorder, and perpetuating factors are the conditions that maintain the illness (Bryant-Waugh & Lask, 1995).

Biological Factors

Biological factors that predispose an individual to develop anorexia nervosa include a possible genetic susceptibility. Twin studies have revealed that concordance rates for anorexia nervosa were higher among monozygotic twins than dizygotic twins (American Psychiatric Association, 1994; Holland, Sicotte, & Treasure, 1988). Likewise, family studies have reported that anorexia nervosa tends to aggregate among families with intergenerational transmission. Strober, Lampert, Morrell, Burroughs, and Jacobs (1990) have suggested that one is eight times more likely to find a history of anorexia nervosa in female first-degree relatives of a client with the same disorder than in the general population. Similarly, one is less likely to find a history of anorexia nervosa among female first-degree relatives of a client with a different disorder.

In addition to genetic susceptibility, it is possible that hypothalamic dysfunction may play a role in the pathogenesis of anorexia nervosa. It is understood that abnormalities in hypothalamic functioning usually occur in anorexia nervosa. Such irregularities are the result of endocrine disturbance involving the hypothalamic-pituitary-gonadal axis (Wren & Lask, 1993). Questions have risen in relation to whether such an
endocrine disorder is primary or secondary to the onset of anorexia nervosa. Although some studies have suggested that it is primary (Russell, 1970; 1977; 1985), an overwhelming amount of studies have suggested that it is secondary to malnutrition and weight loss (Hsu, 1990).

Zinc deficiency is another questionable biological factor. Some studies have suggested that the symptoms of zinc deficiency may cause anorexia nervosa. These symptoms include loss of taste, loss of appetite, and depression (Wren & Lask, 1993). To further support this argument, some studies have highlighted the fact that many children with anorexia nervosa are also zinc deficient (Lask, Fosson, Thomas, & Rolfe, 1993). However, like hypothalamic dysfunction, some researchers have argued that zinc deficiency does not cause anorexia nervosa, but is secondary to the disorder. To support such a claim, studies have reported that zinc supplementation does not improve the course of anorexia nervosa (Wren & Lask, 1993).

Disturbances in gastric emptying may, likewise, be another biological factor, especially among children (Bryant-Waugh & Lask, 1995). Studies have indicated that it is possible for some foods, especially carbohydrates, to trigger an abnormal reaction among multiple polypeptide hormones and neurotransmitters, sending messages to the brain and hypothalamus of satiety and a distaste for more eating (Alderdice, Dinsmore, Buchanan, & Adam, 1985). Further supporting the predisposing role of gastrointestinal problems are the studies reporting that many children with anorexia nervosa have an increased rate of premorbid gastrointestinal problems, such as abdominal pain, reports of
stomach fullness, irregular gastric emptying, and feeding problems (Jacobs & Isaacs, 1986; Rastam, 1992; Wren & Lask, 1993).

Several studies have recently focused on the possibility that central nervous system neurotransmitters play a role in the pathogenesis of anorexia nervosa. Neurotransmitters that have been implicated in the etiology of anorexia nervosa are serotonin, norepinephrine, dopamine, and possibly opioids. These neurotransmitters have been suspected to influence the hypothalamus in similar ways as do hypothalamic neurotransmitter systems (Hsu, 1990). Unfortunately, however, no primary deficit in a central nervous system neurotransmitter has been concretely identified in anorexia nervosa. Changes in neurotransmitter systems that have been identified have been found to occur following weight loss and malnutrition (Hsu, 1990; Minnes et al., 1993).

Finally, there has also been a recent focus on possible brain abnormalities playing a role in the development of anorexia nervosa, especially among children. Fosson, De Bruyn, and Thomas (1993) have reported cerebral atrophy in some children with significant weight loss. Similarly, Gordon, Lask, Bryant-Waugh, Christie, and Timimi (1997) have reported a reduced regional cerebral blood flow in children with anorexia nervosa. As with other biological factors, however, there is no concrete evidence suggesting that cerebral abnormalities are primary to anorexia nervosa. However, the finding that no scans of cerebral atrophy have returned to perfect normality after renourishment suggests that such abnormalities may be primary to the disorder (Gordon et al., 1997).
Individual Factors

According to studies, there are several individual factors that predispose an individual to develop anorexia nervosa. One is the experience of significant adolescent turmoil. Children entering adolescence, especially females, may experience significant anxiety, insecurity, and self-consciousness in the process of forming an identity (Tobin-Richards, Boxer, & Peterson, 1983). Such unhappiness may lead to significant depression that drives an adolescent to seek attractiveness and self-worth through dieting and weight control (Hsu, 1990).

Related to this individual factor are other factors such as self-esteem, self-concept, and body satisfaction. Several studies have reported that a low self-esteem, a low self-concept, and body dissatisfaction predispose an individual to develop anorexia nervosa or other eating disorders (Button, Loan, Davies, & Sonuga-Barke, 1997; Button, Sonuga-Barke, Davies, & Thompson, 1996; Hsu, 1990).

Personality disturbances, such as those described earlier, comprise yet another individual factor. In fact, some researchers suggest that such personality disturbances are central to the development of anorexia nervosa (Strober, 1981). To explain the development of such disturbances, numerous psychodynamic theories have been developed (Bruch, 1974; Chernin, 1986; Palazzoli, 1974). Bruch (1974), for example, has suggested that when a mother persistently misreads the hunger cues of her infant and instead feeds the child to suit her own needs and schedules, the child begins to feel incompetent and develops a lack of trust in the world around him/her. The child becomes compliant with the feeding rituals in order to maintain whatever connection exists with
the mother. With time, the child grows up with a sense of ineffectiveness and dependence, and continues to be compliant with those around him/her so as to win their approval and affection.

In a similar way, self-psychologists have postulated that pathology develops when a child has not internalized certain functions and structure at the time of the mother-child separation. Such functions include the ability to provide one's own cohesiveness, soothing, protection, self-esteem regulation, and tension regulation (Goodsitt, 1997; Hsu, 1990; Kohut, 1971). Drive-conflict theorists and object relations theorists have, likewise, suggested slightly different theories (Goodsitt, 1997). Despite the differences among psychodynamic theories, most have suggested that underlying personality disturbances are rooted in the early mother/child feeding interactions (Wren & Lask, 1993).

**Family Characteristics**

Several studies have argued that certain family characteristics predispose individuals to develop anorexia nervosa. One reoccurring theme among many families with anorexia nervosa is marked family conflict and discord (Casper, 1995; Fosson et al., 1987; Jacobs & Isaacs, 1986; Morgan & Russell, 1975). Such family conflict is characterized by disturbances in the mother-child relationship, the father-child relationship, disharmony between the parents, and sometimes sibling rivalry (Jacobs & Isaacs, 1986; Morgan & Russell, 1975). Although high incidences of conflict have been found among most anorectic families, results are mixed in regards to the frequency of conflict found among families with a pre-pubertal onset. Gowers, Crisp, Joughin, and Bhat (1991), for instance, have reported that pre-pubertal cases are more likely to have
better parental relationships. However, Jacobs and Isaacs (1986) have reported that both pre-pubertal and post-pubertal cases display similar levels of family disturbance.

Regardless of such controversy, Minuchin, Rosman, and Baker (1978) have reported that conflict found among families with anorexia nervosa, in general, is characterized by certain dysfunctional, transactional patterns. Such patterns include enmeshment wherein a family highly values proximity in interpersonal contact. In such families, loyalty, cohesion, and self-sacrifice have greater priority over independence, self-differentiation, and self-realization. There is often excessive togetherness, overinvolvement, a lack of privacy, and weak family subsystem boundaries. Members often speak for one another or relay messages back and forth. Direct communication is frequently blocked (Hsu, 1990; Jacobs & Isaacs, 1986; Minuchin & Fishman, 1981; Minuchin, Rosman, & Baker, 1978).

Overprotectiveness is another identified dysfunctional, transactional pattern. Overprotectiveness refers to the intrusive parental concern of the child. Overprotective families usually exhibit excessive nurturing and intense worry for each member's well-being. With such overprotection, one becomes highly self-conscious and develops a need for social approval. Often times, somatic complaints and pacifying behaviors occur within such families as well. It has even been suggested that symptoms of anorexia nervosa may actually be attempts to resolve problems in families where problems are not resolved in an honest and direct manner (Hsu, 1990; Minuchin et al., 1978; Wren & Lask, 1993).
Rigidity is, likewise, common among families with anorexia nervosa. Such a pattern refers to the family’s strong determination to maintain the status quo. With such a determination, problems are ignored and change is deemed threatening and avoided. In maintaining the status quo, the family avoids any distress and upset (Hsu, 1990; Minuchin et al., 1978). Some researchers have gone on to argue that the onset of anorexia nervosa itself can provide a respite for families that are faced with other co-occurring stressors. Rather than dealing with the on-going stressors and negotiating change, the family chooses to support the symptoms of anorexia nervosa to maintain the status quo (Dare, 1985).

Lack of conflict resolution is the last identified transactional pattern observed among families with anorexia nervosa. This pattern refers to the family’s low conflict tolerance that is exacerbated by their consistent use of detouring mechanisms, scapegoating, and avoidance (Hsu, 1990; Minuchin & Fishman, 1981; Minuchin et al., 1978).

In addition to the above, research has indicated that families with anorexia nervosa tend to be concerned with their external appearance and physical fitness (Hsu, 1990). They have also been reported to display more frequent food fads than the general population (Jacobs & Isaacs, 1986). Moreover, they have been reported to be anxious about maintaining outward harmony, and concerned about upholding covert, rigid family rules at the expense of open communication (Hsu, 1990; Yager, 1982). Many times in such families, children are triangulated into unknown marital conflicts. Such children are unaware that they are being persuaded to take sides with one parent at the expense of the
other (Minuchin et al., 1978; Palazzoli, 1974). Ambivalent attachments and affective instability have also been linked to the development of anorexia nervosa. Such ambivalence has been described as mother-child relationships wherein the mother relates to the child in a close, but sometimes volatile, dominating, and critical manner (Morgan & Russell, 1975; Salzman, 1997). Aside from the above, studies have suggested that parents of families with anorexia nervosa tend to be resistant to assume personal leadership and responsibility. It has also been revealed that they are apt to blame their decisions on others and unwilling to acknowledge their personal preference and needs (Hsu, 1990).

**Sexual Abuse Experiences**

In relation to family factors, it is not uncommon to find a family history of eating disorders, mood disorders, and substance abuse among families with anorexia nervosa. It is also not uncommon to discover a history of sexual abuse. Recent studies have examined the role of childhood sexual abuse and the development of eating disorders, including anorexia nervosa. Some of them have reported a link between the two (Hall, Tice, Beresford, Wooley, & Klassen, 1989; Oppenheimer, Howells, Palmer, & Chaloner, 1985; Palmer, Oppenheimer, Dignon, Chaloner, & Howells, 1990; Smolak, Levine, & Sullins, 1990).

Others, however, have reported the opposite. Kinzl, Mangweth, Traweger, and Biebl (1997), for instance, studied eating-disordered behavior among males and reported that childhood sexual abuse experiences are not the factors that predispose individuals to develop eating disorders. Instead, their findings suggested that long-lasting negative
familial relationships, characterized by emotional neglect and physical aggressiveness increase the risk for eating disorders. Others have made similar suggestions, proposing that childhood sexual abuse simply intensifies the family dysfunction and personal factors (i.e., low self-esteem) that actually predispose a child to eating disorders (Lask & Bryant-Waugh, 1992). Still others have argued that there are many methodological flaws in the published studies linking childhood sexual abuse to eating disorders. Such researchers have argued that there are differences in the definitions of abuse, the demographics of subjects, and the methods of gathering data. They have also argued that the correlations between sexual abuse and eating disorders may be confounded by the tendency of both variables to occur within the female population (Finn, Hartman, Leon, & Lawson, 1986; Lask & Bryant-Waugh, 1992; Pope & Hudson, 1992).

Sociocultural Influences

Several studies have examined the role that sociocultural factors play in the development of anorexia nervosa. Some of these studies have commented on the ironic paradoxical relationship between food abundance and body weight. In particular, it has been reported that anorexia nervosa tends to be more prevalent among Western industrialized countries where food is abundant. Such countries include the United States and Great Britain (American Psychiatric Association, 1994; Hsu, 1990). It has further been postulated that, although anorexia nervosa can develop within any individual, it is more prevalent among White affluent populations. In addition, it has been reported to be more prevalent among Jewish families. Catholic families, or families of other religious
backgrounds that adhere to strict, puritanical attitudes, especially towards sexuality (Gordon, 1991).

Some studies have suggested that these tendencies occur because such populations in the Western world highly value achievement and financial success. In addition, unlike less developed countries that view increasing body weight as a sign of increasing success and wealth, White, affluent populations of the Western world are more likely to view thinness as a sign of social status (Gordon, 1991; Hsu, 1990; Kinoy & Holman, 1992). Furthermore, such societies have been bombarded with mass media that value thinness and emphasize the need to exercise and reduce the intake of calories (Minnes et al., 1993). Everyday, these populations are exposed to advertisements and popular literature that sell diet-food products and miracle diet plans. One of the most popular books that describes a diet plan was the “Beverly Hills Diet.” This book sold over one million copies in the early 1980’s. It describes a diet that has been suspected to mimic eating disorders. In particular, the “Beverly Hills Diet” requires individuals to consume nothing but large amounts of fruit for the first several days. The consumption of fruit is expected to cancel out any fat from other foods and increase the frequency of loose bowel movements and urination. The book theorizes that the more one eliminates foods (through bowel movements and urination), the more weight one will lose (Gordon, 1991, p. 109).

Aside from promoting unhealthy diet fads, the media has also idolized slender role models such as actresses, supermodels, and athletes. The media has projected images that equate thinness with happiness and success (Kinoy & Holman, 1992; Minnes...
et al., 1993). Unfortunately, these images have been reported to increase the body size overestimation of individuals and indirectly increase the development of eating disorders, especially among women (Myers & Biocca, 1992; Waller, Hamilton, & Shaw, 1992).

Despite tendencies of White, religious, and affluent families in the Western world to be predisposed to the development of anorexia nervosa, recent studies have argued that such characteristics are no longer necessary. For example, some studies have argued that while socioeconomic status may be associated with differences in eating behaviors and attitudes, it does not appear to be a significant factor for the development of anorexia nervosa (Rogers, Resnick, Mitchell, & Blum, 1997). Others have also argued that studies revealing differences in the prevalence of anorexia nervosa among various social classes may have contained errors. According to these researchers, many of the studies utilized psychometric tests, such as the Eating Attitudes Test (EAT). These sort of tests have been suspected to be unreliable measures of anorexia nervosa since populations from different social classes have demonstrated systematic differences in the manner in which questions were interpreted and answered (Eisler & Szmulker, 1985).

Aside from socioeconomic status, several studies have reported an increase of anorexia nervosa among minority populations of the Western world. They have also reported an increase among Third world countries that are undergoing rapid economic and socio-cultural change. In particular, studies have reported an increase of eating disorders among African-Americans, especially those from upper social classes (Caldwell, Brownell, & Wilfley, 1997; Gordon, 1991; Hsu, 1987). Studies have also reported an increase of eating disorders among Asian populations (Bhadrinath, 1990;
Bryant-Waugh & Lask, 1991; Lai, Pang, & Wong, 1995). Likewise, studies have reported an increased prevalence of abnormal eating behavior among schoolgirls in India (King & Bhugra, 1989). Some researchers have theorized that such increases are influenced by the values of individualism, consumerism, achievement, and financial success that are adopted when non-Western groups are exposed to Western culture (Gordon, 1991; Kinoy & Holman, 1992).

Regardless of socioeconomic status, religion, or ethnic background, many studies have reported that females are most likely to develop anorexia nervosa. Feminist theories have reasoned that such tendencies occur because of the increasing contradictory demands and expectations that society has uniquely placed on females. For one, society has introduced female contraceptive techniques that have not only altered the nature of sexual relationships, but have also juxtaposed two opposing values of permissiveness and restraint upon women (Crisp, 1980). Society has also increasingly pressured females to reduce their fatness, conform to fashions, and fight what may be inevitable biological destiny. At the same time, it has been encouraging them to become liberated and assertive. Society has ascribed other conflicting expectations on women such as the dual role of feeding others, while denying themselves so as to maintain their figure. Among other roles are also women's expected roles of sexuality, motherhood, independence, dependence, and achievement. Implicit in all the demands are the expectations of women to honor others and meet the needs of others, while practicing self-denial, restraint, and impulse control. Feminist theories have argued that such contradictory demands can create confusion and insecurity among women, especially about their own bodies. They
can create conflict when women attempt to assess their own identity and needs, as well. Unfortunately, such demands can also predispose women to develop symptoms of anorexia nervosa in an attempt to deal with the contradictions and protect their underdeveloped sense of self (Crisp, 1980; Kinoy & Holman, 1992; Minnes et al., 1993; Orbach, 1986; Wren & Lask, 1993).

Although women primarily develop anorexia nervosa, a few studies have reported instances wherein males developed the disorder (Lai et al., 1995). Some studies have suggested that such instances occur because, similar to women, men and boys are increasingly exposed to societal pressures that can cause intrapersonal struggles. Studies have suggested that ideals of masculinity have undergone change in that fitness and slimness are now often associated with success, achievement, and maleness. Such ideals can predispose males to develop eating disorders (Anderson, 1992; Kinoy & Holman, 1992).

Precipitating Factors

The above factors have generally been thought to predispose individuals to develop anorexia nervosa. However, such factors do not necessarily trigger the onset of illness. Several studies have reported that, many times, individuals with anorexia nervosa experience some life event or stressor that precipitates the development of anorexia nervosa (Morgan & Russell, 1975). Common life events experienced by children, as well as adolescents, before their onset of anorexia nervosa include separations from or losses of significant people. Separations can include parental separation or divorce, death of a family member or friend, parental hospitalization, experiencing a sibling leaving home.
and loss of a friend. Other life events reported by children and adolescents include
major changes in life patterns such as moving to a new school or new neighborhood, the
birth of a sibling, and leaving home for college. Increased academic pressure or failure,
exam anxiety, being teased about being overweight, physical illnesses such as the flu, and
interpersonal conflicts with friends or family members have, likewise, been reported by
children and adolescents with the disorder (Casper, 1995; Gowers et al., 1991; Margo.
1985; Morgan & Russell, 1975; Wren & Lask, 1993). Finally, although some studies
have disagreed about the frequency rate, anxiety about puberty, menstruation, dating, and
sometimes sexual experiences have been noted as precipitants among children and
adolescents with anorexia nervosa (Buvat-Herbaut, Hebbinckyus, Lemaire, & Buvat.
1983; Gowers et al., 1991; Gralen, Levine, Smolak, & Mumen, 1990; Jacobs & Isaacs,
1986; Wren & Lask, 1993).

Crisp (1980, 1997) has suggested that such anxiety is related to anorectics’ fear of
the adult world, not fatness. According to Crisp (1980, 1997), children and adolescents
with anorexia nervosa fear the biological maturity, sexuality, and role changes that
accompany pubertal development. To solve their crisis, they restrict their eating,
reversing all pubertal hormonal changes and in a sense return to the safe pre-pubertal
world.

Adults, too, have been reported to experience significant life events within the
year prior to their onset of anorexia nervosa. However, some reports have argued that,
compared to their younger counterparts, adults with the disorder are more likely to
experience multiple significant life events, rather than one single stressor. In addition,
such events are more likely to be accompanied by a background of chronic stress (Mynors-Wallis, Treasure, & Chee, 1992; Ryle, 1936b). Life events reported by adults with anorexia nervosa include children leaving home, a sterilization, a hysterectomy, the death of a parent, spouse, or child, an unwanted pregnancy or traumatic delivery, a spouse’s infidelity, moving to a new house, and the disappearance of a child (Mynors-Wallis et al., 1992).

Perpetuating Factors

Aside from predisposing and precipitating factors, other factors tend to perpetuate and maintain the disorder. Often times, the physiological symptoms of anorexia nervosa can maintain the illness. For example, delayed gastric emptying can cause individuals to experience an uncomfortable feeling of fullness after small meals. Such unpleasantness can lead to further food restriction and a greater body image distortion. Social isolation and reduced interest in favorite activities can also perpetuate the disorder by increasing feelings of depression and lowering the self-esteem (Bryant-Waugh & Lask, 1995; Wren & Lask, 1993).

Cognitive-behavioral theories have hypothesized that the reduction of caloric intake is further positively reinforced and maintained by thinness which gives a sense of self-gratification, self-control, mastery, and approval and attention from others. It has also been postulated that anorexia nervosa is reinforced by the individual’s cognitive distortions such as catastrophizing, dichotomous reasoning, and overgeneralization (Garner, Vitousek, & Pike, 1997; Minnes et al., 1993). Finally, anorexia nervosa can be perpetuated by the anorectic’s avoidance of intrapersonal or interpersonal conflicts that
predisposed or precipitated the onset of illness in the first place. Likewise, as previously mentioned, the symptoms of anorexia nervosa can be maintained by family members who utilize the illness as a detouring mechanism to avoid unresolved family problems (Dare, 1985; Wren & Lask, 1993).

**Treatment**

Prior to treatment interventions, a thorough assessment of the individual with anorexia nervosa is necessary to determine the most appropriate management of care. Studies have indicated that a thorough assessment is one that takes into account the person’s medical, psychological, behavioral, family, and social aspects of the disorder (Hodes, 1993; Minnes et al., 1993). In reference to children with the disorder, research has suggested that it is particularly important to inquire about the child’s history of illness, possible causative factors, severity of illness, the parents’ previous management of the disorder, the child’s developmental history, and the family history of any problems with mental health. Research has also advised to inquire and observe the family members’ interactions, paying close attention to their alliances, boundaries, management of conflict, hierarchical systems, and affective responses. In examining the child’s psychopathology, it has been suggested to obtain self-reports of the child’s perception of illness, body image, family role, school performance, interests and activities, anxieties, attitude towards puberty and sexuality, and history of any adverse sexual experiences. Mental status examinations, physical examinations, school reports, and psychological reports have also been suggested to help augment the initial assessment (Minuchin et al., 1978; Tranter, 1993).
Following the initial assessment, decisions in regards to the management of care are obligatory. First and foremost, decisions need to be made in reference to the need for hospitalization. Physical complications which develop as a result of anorexia nervosa can greatly affect a person’s future health. Some of them are irreversible. Others are life-threatening. Generally, indications for hospital admission include severe emaciation, dehydration, electrolyte imbalance, signs of circulatory failure, continuous vomiting, gastro-intestinal bleeding, marked symptoms of depression such as suicidal or self-injurious behavior, failed outpatient treatment, and an unsupportive family or social environment (Bryant-Waugh & Lask, 1995; Hodes, 1993; Lask, 1993; Lask & Bryant-Waugh, 1997).

Regardless of whether the person with anorexia nervosa is in need of inpatient or outpatient services, research has indicated that the initial goals of treatment should be the individual’s immediate medical stabilization and weight restoration. Such goals involve determining a target weight range and implementing a refeeding program when necessary. Goals following such stabilization include the person’s development of healthier eating patterns, as well as the person’s development of insight and alleviation of contributing psychological factors (Bryant-Waugh & Lask, 1995; Lask, 1993; Maloney, Pettigrew, & Farrell, 1983).

In reference to treatment modalities, there are a wide variety of approaches that can be implemented. Such approaches include behavior therapy, cognitive therapy, psychodynamic therapy, feminist approaches, family therapy, group therapy, and psycheducational treatment (American Psychiatric Association, 1989; Garner &
Garfinkel, 1997; Hsu, 1990; Minnes et al., 1993). Of these approaches, short-term, individual cognitive-behavioral and interpersonal therapies have been argued to be most appropriate for adults with anorexia nervosa (American Psychiatric Association, 1993; Russell, Szmukler, Dare, & Eisler, 1987). On the contrary, family therapy has been suggested to be the most appropriate form of treatment for children and adolescents with anorexia nervosa, especially for those who do not have chronic illnesses (Dare, Eisler, Russell, & Szmukler, 1990; Le Grange, 1993; Robin, Siegel, Koepke, Moye, Tice, 1994; Russell et al., 1987). Although there are very few empirical indications that one form of family therapy is more effective than another, structural family therapy, strategic family therapy, and behavioral systems family therapy (BFST) have been the most commonly cited therapies. All have the primary aim to strengthen the parental subsystem and involve the parents in regaining control over the child’s eating and weight gain (Bryant-Waugh & Lask, 1995; Minuchin et al., 1978; Palazzoli, 1978; Robin, Bedway, Siegel, & Gilroy, 1996; Robin, Siegel, Koepke, Moye, & Tice, 1994; Russell et al., 1987).

Even though individual therapy has been suggested to be most appropriate for adults and family therapy has been deemed most appropriate for children and adolescents, research has also revealed that the most effective treatment programs are ones that are immediately initiated, intensive, and comprehensive (Lask, 1993). These attributes are particularly important for programs that treat children with anorexia nervosa since children are far more prone to severe physical complications and unrelenting morbidity (Bryant-Waugh, Knibbs, Fosson, Kaminski, & Lask, 1988).
In addition to such attributes, there are a number of other recommendations that have been proposed in developing comprehensive eating disorder programs for children. Such recommendations include ensuring that child-oriented professionals conduct the programs, and ensuring that parents and other family members are provided with information and education about the details of the child's disorder. Another suggestion is to keep the adults in a position of authority and in agreement with regards to the child's health and safety. It has been proposed that unless adults take control, the child's determination to retain control, as well as the child's lack of insight, can prove to be fatal. Other recommendations include the provision of parental counseling, family therapy, and individual therapy, and the consideration of pharmacotherapy (Lask, 1993; Lask & Bryant-Waugh, 1997). Although medication has been reported to have little use in the treatment of anorexia nervosa across all ages, antidepressants, antipsychotic agents, antianxiety agents, and cyproheptadine (a serotonin and histamine antagonist) have been found to be of value at times. However, their prescription has been used with caution because of the dangers they pose to very low weight patients (American Psychiatric Association, 1989; Bryant-Waugh & Lask, 1995; Hsu, 1990; Lask & Bryant-Waugh, 1997). Finally, it has been suggested that a continuing liaison (i.e., a social worker) with the child's school staff and parents be involved in treatment to ensure that the correct balance between the conflicting demands of the child's education and health is accomplished. Such a liaison is needed because many times children with anorexia nervosa are too ill to attend school and will worry about falling behind (Lask & Bryant-Waugh, 1997; Tate, 1993).
Outside of secondary and tertiary intervention methods, primary prevention has rarely been addressed in previous literature. Those that have addressed the issue have suggested that the most important prevention strategy is education. They have suggested that parents be educated about nutrition, exercise, recreational activity, children's attitudes about appearance, and the signs of eating disorders. They have also suggested that parents be educated about the importance of not using food to reward or punish children, as well as about how their body and diet preoccupation affects the attitudes and outlook of their children. It has been suggested that such education be provided in written form or discussed directly to parents by parent-teacher associations, social service agencies, and pediatricians. It has further been proposed that pamphlets about eating disorders be made available at grocery stores, convenience stores, and pharmacies. Researchers have also suggested that schools play a major role in preventing eating disorders. Aside from providing evening lecture series at local schools for interested parents, schools could provide courses for students on nutrition and health. They could also develop classroom assignments that help break down the misconceptions of thinness and beauty. In addition, they could improve the selection of cafeteria foods offered to students. Aside from the above, preventative proposals have also been made to develop group counseling programs for people identified as being at risk for eating disorders. Proposals have also been made to encourage the media to promote the ideal of a healthy body rather than an extremely slim one (Casper, 1995; Halmi, 1995).
Prognosis

Studies examining the prognosis of individuals with anorexia nervosa have revealed mixed and contradictory results. Some have suggested that individuals with anorexia nervosa have positive outcomes (Bryant-Waugh & Lask, 1995; Sagardoy, Ashton, Mateos, Perez, & Carrasco, 1989). Others have indicated the opposite, suggesting that complete recovery from the disorder is probably the exception rather than the rule (Bryant-Waugh, 1993; Eckert, Halmi, Marchi, Grove, & Crosby, 1995).

In reference to specific age groups, few studies have reported that early age of onset points to a better long-term prognosis (Bruch, 1973; Crisp, 1980; Crisp, Kalucy, Lacey, & Harding, 1977). Another has reported that a late age of onset is associated with unfavorable outcomes (Morgan & Russell, 1975). Still another study has reported that the age of onset has no prognostic significance (Hawley, 1985). The majority of studies, however, have indicated that early-onset anorexia nervosa has a poorer outcome, especially in regards to a child’s physical and pubertal development (Bryant-Waugh et al., 1988; Lask & Bryant-Waugh, 1992; Jacobs & Isaacs, 1986; Russell, 1985; Walford & McCune, 1991). Supporting such a claim, McKenzie and Joyce (1992) reported that individuals with anorexia nervosa under the age of 17 were more likely to be readmitted into a psychiatric unit for treatment following their first admission.

Aside from age of onset, studies have also revealed other indicators that are associated with positive or negative outcomes. Indicators of positive outcomes include a slow, steady increase of weight (Remschmidt, Wienad, & Wewetzer, 1991), and an early diagnosis and treatment of the disorder (Bryant-Waugh & Lask, 1995; Kreipe, Churchill.
& Strauss, 1989). Although there are mixed results, it has also been argued that males
with anorexia nervosa, especially those with an early onset, tend to have a better
prognosis (Higgs, Goodyer, & Birch, 1989).

Indicators of poor outcomes include depression during illness, prolonged
hospitalizations, disturbed family relationships, single-parent families, and blended
families in which one or both parents has been married before (Bryant-Waugh et al.,
1988; Walford & McCune, 1991). Other indicators of a poor prognosis include a longer
duration of illness, previous admissions to psychiatric hospitals, lower minimum weight,
and premorbid personality difficulties (Hsu, 1990; Morgan & Russell, 1975). Finally, it
has been suggested that adults with anorexia nervosa who suffer a high occurrence of
major negative life events during the first year after their onset are less likely to improve
(Sohlberg & Norring, 1992).
CHAPTER 3

METHODOLOGY

Research Question

Literature regarding early-onset anorexia nervosa is limited. That which does exist presents many contradictory results and claims. Even the abundant literature that has examined anorexia nervosa in general contains many gray and debatable areas. Discrepancies regarding the etiology of anorexia nervosa, its treatment, and prognosis remain within the vast field of research. Specifically in reference to early-onset anorexia nervosa, ambiguities continue to exist in relation to valid and reliable diagnostic criteria. Such criteria are critical to the early detection and successful treatment of the disorder. Based on the need to add to the limited research and help clarify misconceptions, this study addresses the following question: What are the similarities and differences between early- and later-onset anorexia nervosa?

General Study Design

In an effort to explore similarities and differences of early- and later-onset anorexia nervosa, the study will present three case studies of a child, adolescent, and adult with anorexia nervosa. Case studies were assumed to be the most appropriate research design because of the intimacy and enrichment of personal data that case studies
afford. Furthermore, because children with anorexia nervosa are commonly overlooked and therefore rarely referred for treatment, a case study was deemed the most practical (Fosson, Knibbs, Bryant-Waugh, & Lask, 1987; Lask & Bryant-Waugh, 1992).

A case study is defined as an empirical inquiry that utilizes multiple sources of evidence to investigate a present-day phenomenon within its real-life context. It is especially useful when the boundaries between the phenomenon and its context are unclear (Yin, 1985). It is also practical to utilize when the availability of a special case is limited. It is distinguished by its exclusive focus on one or several cases and gathers information through qualitative or quantitative means. The purpose of a case study is not to statistically generalize the findings to an entire population, but to show how the information gathered is consistent or inconsistent with a particular theory or theories. Of course a single case study is not an adequate test for a theory, but continued replication and random control tests of the results can, in time, serve as a reliable method to prove or disprove a theory. The benefits of a case study are multitude. The most significant benefit is that it allows for obtaining a depth of understanding of the phenomenon in question. It allows a researcher to present comprehensive detailed illustrations of the case or cases studied. In addition, a case study can be more flexible and less expensive compared to other research designs (Rubin & Babbie, 1993).

**Sample**

The study consisted of a nonrandom, purposive sample of a child, adolescent, and adult with anorexia nervosa (n=3). The names of all three subjects were changed to preserve their anonymity. The first subject, Marianne, was an 11 year old single
Caucasian female from an upper-middle class family. Marianne’s family consisted of her two biological parents and three older brothers. Marianne was currently in the sixth grade and excelled in her studies. She developed symptoms of anorexia nervosa at age 10, but was not diagnosed with the disorder until four months prior to the interview. Marianne weighed 79 pounds and measured 5 feet and 1 inch tall at the time of the interview.

The second subject, Emily, was an 18 year old single Caucasian female from an upper class family that included her two biological parents and one sixteen year old sister. Emily had recently graduated from high school and was currently in her first year of college. Emily developed symptoms of anorexia nervosa at age 17, during her senior year in high school. She was diagnosed with the disorder three months prior to the interview. At the time of the interview, Emily measured 5 feet and 10 ¾ inches tall and weighed 97 ½ pounds.

The last subject, Anita, was a 41 year old Argentinean female who moved to the United States during 1978. She was married to her husband of 15 years and had one seventeen year old son. Her family of origin consisted of her biological mother, her older sister, younger brother, and deceased father. Her family of origin, who continued to live in Argentina, and her current family constellation were considered to have a lower to middle class socioeconomic status. Anita completed high school. She was employed as a part-time Spanish-speaking interpreter within the local metropolitan area. Anita developed anorexia nervosa with bulimic features around age 36. She was diagnosed with the disorder shortly after her onset. Anita sought outpatient counseling for several years.
and was hospitalized for severe malnutrition one year prior to the interview. At the time of the interview, Anita was 5 feet and 6 inches tall and weighed 105 pounds.

**Procedures**

Prior to the selection of subjects, a packet was submitted to the Social/Behavioral Sciences Committee of the Institutional Review Board at the University of Nevada, Las Vegas (UNLV). The packet included a description of the study that explicated the desired subjects; purpose, methods, and procedures; risks and benefits of the study; the risk-benefit ratio; costs to the subjects; and informed consent (see Appendix B-1). The packet also included appropriate consent forms that were utilized in obtaining permission from the subjects and their guardian(s), if under the age of 18. Each consent form disclosed the purpose, risks, benefits, and procedures of the study. It also indicated that participation was voluntary and that information revealed would remain confidential and anonymous (see Appendix B-2). In addition to the above, the packet included two questionnaires that were developed specifically for the study and utilized during the personal interviews. The first questionnaire was the “Personal Interview with Anorectic Subject” (see Appendix B-3) and the second was the “Family and/or Therapist Interview” (see Appendix B-4). Finally, a letter from the executive director of a west coast eating disorder clinic was included in the packet stating that the facility would assist in securing subjects for the study (see Appendix B-5). Based on the above information contained in the packet, the Institutional Review Board at UNLV approved the study on the basis that it followed the Human Subject Protocol (see Appendix C).
Subjects were secured from a referral made by the clinic to a nearby medical center located in the metropolitan area. The same packet was submitted to the medical center’s Human Use and Research Committee for approval to interview clients of their outpatient services. Because the clients were not currently admitted to the inpatient facility, the Committee members reported they would exercise no jurisdiction over the study and concluded the study posed no harm to subjects (see Appendix D).

Upon approval from both the Institutional Review Board at UNLV and the Human Use and Research Committee at the medical center, three subjects were selected based on availability and specific criteria. The first criterion was that all three subjects be diagnosed with anorexia nervosa. The second criterion was that each subject met specific age requirements. In particular, one was required to be a child; another was to be an adolescent; and the third was required to be an adult. For the purposes of this study, a child was considered to be between the ages of 7 and 12; an adolescent was considered to be ages 13 through 18; and an adult was considered to be age 19 and above. Because the primary purpose of the study entailed comparing anorexia nervosa across ages, there was no preference for other demographic data such as gender, race, ethnicity, socioeconomic status, religion, or sexual orientation.

Data regarding the subjects’ personal and family background, as well as their onset and course of illness, were retrieved from interviews with both the subjects and significant people involved in their treatment. One of two questionnaires designed for the study were utilized during the interviews. All information was collected and recorded in a systematic fashion. Each interview lasted approximately one and a half hours and was
conducted either at the medical center or at the subject’s home. To augment the personal interviews, relevant case records concerning the subjects were reviewed. All information gathered was recorded in writing during the interviews or while examining case records.

In gathering information about Marianne and her eating disorder, Marianne and her mother were interviewed separately in an office at the medical center. A female therapist who facilitated an outpatient adolescent eating disorders group that Marianne and her family had been attending was also interviewed in her personal office located at the medical center. The therapist, or group facilitator, was a licensed clinical social worker. Due to the family’s schedule, Marianne’s father and older brothers were unable to attend.

In gathering information about Emily and her illness, Emily and her two parents were interviewed in their home separately. Although Emily’s sister was home during the interviews, she did not participate since she was preoccupied and was not directly involved in Emily’s treatment. Aside from Emily and her parents, the therapist who conducted the outpatient adolescent eating disorders group was interviewed in her office at the medical center. Like Marianne, Emily and her parents had also been participating in the group at the time of the interview.

To gather information about Anita and her disorder, Anita was interviewed in an office at the medical center. Anita’s husband and son were not interviewed because they no longer vested interest in her treatment. In addition to interviewing Anita, Anita’s individual psychotherapist was interviewed in her office at the medical center.
In conducting the personal interviews with the anorectic subjects, a questionnaire developed for the purpose of this study was utilized. It consisted of 45 questions that were broken down into the following eight categories: demographics of the respondent, background information regarding the onset of anorexia nervosa, clinical features, physical signs and symptoms, associated mental disorders, personality characteristics, personal and family history, and current progress (see Appendix B-3).

The first category, demographics of the respondent, entailed gathering information about the subject’s current age, date of birth, gender, race, current height, and current weight. The second category, background information regarding the onset of anorexia nervosa, included four open-ended questions inquiring about the subject’s age of onset, height and weight prior to the onset, and reactions to significant life events that occurred within the year prior to their onset.

The next section, clinical features, accounted for 12 questions, 11 of which were open-ended. The 12 questions explored the subject’s presenting features at the time of their onset and was formulated from criteria put forth by the American Psychiatric Association (1994). Several of the questions were also developed from pre-existing scales or inventories that measure eating disorders, such as the Eating Attitudes Test-40 (EAT-40) (Garner, Olmstead, Bohr, & Garfinkel, 1982), the Body Shape Questionnaire (BSQ) (Cooper, Taylor, Cooper, & Fairburn, 1987), the Eating Disorder Examination (EDE) (Cooper & Fairburn, 1987), and the Multidimensional Eating Disorder Inventory (EDI) (Garner, Olmstead, & Polivy, 1983). To be specific, the 12 questions inquired about the
amount of weight the subject lost or failed to gain, feelings about gaining weight or becoming fat, and her body image perception. To help assess the subject’s body image perception, the Argyle scale was utilized. The Argyle scale is an instrument that has been regularly used by practitioners and researchers to measure body image disturbance (scale distributed by Meyer, 1997). In addition, the 12 questions explored how the subject’s body shape and weight affected her self-esteem, and whether she acknowledged the seriousness of losing a tremendous amount of weight. The 12 questions also examined the subject’s menstrual cycle history, the occurrence of amenorrhea, her methods to lose weight, and eating patterns or rituals.

The fourth category entailed 2 open-ended questions seeking information about the subject’s physical signs and symptoms. In particular, one question addressed the observable physical signs of the eating disorder such as hair loss, dry skin, lanugo, and yellow discoloration of the skin. The other addressed the occurrence of physical complications that arose as a result of the eating disorder such as constipation, cold intolerance, hypotension, dehydration, and delayed or reversed sexual maturation.

The following section, associated mental disorders, consisted of 4 open-ended questions. The four questions inquired about the subject’s experience of depressive and obsessive-compulsive features, impulse-control problems, and any other emotional or psychological disturbances during the onset of anorexia nervosa.

The sixth category, personality characteristics, involved 8 questions, 7 of which were open-ended. They were developed to assess the subject’s personality characteristics and feelings of self-worth during the onset of their disorder. Several of the eight
questions were formulated from the pre-existing inventory, the EDI (Garner et al.,
1983). To be specific, the 8 questions addressed the subject’s self-esteem, sense of self-
mastery and ineffectiveness, maturity fears, interpersonal distrust, interoceptive
awareness, achievement orientation, degree of compliance, and achievement orientation.
In assessing the subject’s self-esteem and sense of self-mastery, a 10-point, self-report
rating scale was utilized that defined “1” as low and “10” as high.

The seventh section consisted of 14 open-ended questions that explored the
subject’s personal and family history, as well as her social environment. In particular, the
questions inquired about the subject’s birth, childhood development, family of origin and
current family constellation (if married), family history of problems in living, and history
of emotional, physical, or sexual abuse. The questions also examined the subject’s
medical history, educational history, employment history, legal history, drug and alcohol
history, social support system, and psychiatric treatment history.

The last category, current progress, consisted of 6 open-ended questions that
explored the subject’s current attitudes, wellness, and feelings. The subject was asked
about her perception concerning her treatment progress. The subject was also asked to
rate her current self-esteem and sense of self-mastery utilizing the same 10-point, self-
report scale described above. Finally, the subject was requested to list her personal
strengths, interests, and short-term and long-term goals.

In developing the questionnaire, items were formulated based on existing
literature about anorexia nervosa so as to reveal how well the subjects’ experiences
matched what was reflected in previous research. Open-ended questions were preferred
because of the opportunity to probe as much information as possible. Open-ended questions were also preferred so as to minimize interviewer effects and biases. The items within the questionnaire appeared to be clear, unambiguous, and relevant to the respondents. Negative items and double-barreled questions were avoided.

**Family and/or Therapist Interview Questionnaire**

A questionnaire was, likewise, developed for use during the personal interviews with the subjects’ family members and/or therapists. The questionnaire consisted of 34 questions that were broken down into similar categories as the “Personal Interview with Anorectic Subject” questionnaire. The categories included: background information of the respondent, the respondent’s perceptions of the subject’s eating disorder, the subject’s personal and family history, and the respondent’s perceptions of the subject’s current progress.

The first category, background information of the respondent, consisted of 4 open-ended questions. The items inquired about the respondent’s relationship to the subject and services provided to the subject, if a professional. The next section included 14 open-ended questions aimed at assessing the respondent’s perceptions of the subject’s eating disorder. In particular, questions explored how the respondent became concerned about the subject’s eating disorder. Questions also inquired about significant life events prior to the subject’s onset, the subject’s physical, emotional, and psychological signs and symptoms noticed by the respondent, and observed peculiar ritualistic behaviors of the subject. In addition, the respondent was asked to describe the amount of weight lost by the subject, the subject’s methods of measuring their body weight and shape, and
techniques used by the subject to lose weight. The respondent was also asked to
describe the subject’s menstrual cycle history, the subject’s medical complications that
arose during the course of illness, and the subject’s personality at the onset of anorexia
nervosa. If the respondent was a professional working with the subject, he/she was
requested to list secondary diagnoses made during the course of treatment. The third
category was very similar to the personal and family history section within the
questionnaire described above. The only difference is that in describing the subject’s
treatment history, the professional working with the subject was asked to describe the
approaches utilized in treatment. The last section contained two open-ended questions
inquiring about the subject’s progress, limitations, and strengths.

The purpose of the “Family and Therapist Interview” questionnaire was to gather
additional information and any different perspectives regarding the anorectic’s onset,
course of illness, and personal and family history. In developing the questionnaire, items
were formulated based on the current literature. Open-ended questions were again
preferred for the same reasons discussed above. The questions avoided double-barrels
and negative items, and appeared to be concise, explicit, and relevant to the respondents
(see Appendix B-4).

**Reliability**

Reliability refers to the ability of a measurement instrument to yield the same
results each time it is applied to the same object. The more reliable an instrument is, the
less random error it contains. The instruments utilized in this study were original
questionnaires designed for the study. Due to time constraints, no formal tests of
reliability were conducted. However, several steps were taken to promote the tools’ reliability.

For instance, several questions about the subject's clinical features and personality characteristics were formulated based on pre-existing scales and inventories such as the such as the Eating Attitudes Test-40 (EAT-40), the Body Shape Questionnaire (BSQ), the Eating Disorder Examination (EDE), and the Multidimensional Eating Disorder Inventory (EDI). The Argyle scale was also utilized to measure the subject's body image perception. Such scales and inventories have been tested in previous research and have been reported to demonstrate either interrater reliability or internal consistency reliability (Cooper & Fairburn, 1987; Cooper et al., 1987; Garner et al., 1982; Garner et al., 1983; Meyer, 1997). To further embellish reliability, the developed questions were reviewed by professionals in the field. Discrepancies and ambiguities found were refined. To strengthen internal consistency across the three case studies, the researcher conducted all interviews and reviewed all case records in the same systematic fashion. The researcher was also sure to ask only relevant, clear questions of the respondents. In gathering information, many similar responses from the subjects, family members, therapists, and case records were retrieved further enhancing the study’s reliability.

Validity

Reliability does not promote an instrument’s accuracy—validity does. Validity refers to the ability of an empirical measure to adequately reflect the “true” meaning of the concept under consideration. In developing the questionnaires, the measures appeared to possess both face and content validity. They seemed to logically measure what was
intended. They were also based on theory and appeared to cover the range of meaning for each concept.
Case Study 1: Marianne

Marianne was an 11 year old Caucasian female from an upper-middle class family. Her date of birth was in July of 1986. Marianne’s family consisted of her two biological parents and three older brothers. She was currently in the sixth grade and excelled in her studies. Marianne developed symptoms of anorexia nervosa at age 10, during the summer following her fifth grade academic year. She was not diagnosed with the disorder until four months prior to the interview.

At the time of the interview, Marianne weighed 79 pounds and measured 5 feet and 1 inch tall. She was casually dressed, wearing baggy clothes and almost no cosmetic make-up. She appeared to be her stated age, although her articulate use of language and mannerisms were markedly more mature. Marianne was oriented to person, place, and time and demonstrated logical, intelligent thought processes. Her mood and affect were both positive and congruent. She spoke in a normal, coherent fashion, with a normal rate of speech. She was friendly and cooperative during the interview and responded to all interview questions appropriately. She appeared to have good insight, judgment, and memory.
As per Marianne, she weighed 115 pounds and measured 5 feet tall prior to her onset of illness. She was described as somewhat “pudgy.” In the year preceding her onset, reports from all sources indicated that Marianne experienced much turmoil and stress. She observed her parents continuously arguing about financial burdens and assumed her parents would soon separate and divorce. She also experienced a tremendous amount of teasing about her weight from her brothers and peers at school. Marianne’s mother and case records also noted that she had very few friends during her fifth grade year. Even Marianne described her previous school year as “a bad year.” According to case records, Marianne attributed her lack of friends to her weight. In addition to such ongoing stress, Marianne experienced two other critical incidents just prior to her onset. The first, according to Marianne, was the theft of her family’s automobile which created a tremendous amount of panic within the family. The second, and possibly most critical, as reported by the mother, was Marianne’s discovery of her mother’s recent diagnosis of diabetes and a chronic kidney disease. As admitted by the mother and therapist, such news created a type of role reversal between Marianne and her mother in which the mother continuously sought nurturance from her daughter. In reference to all of the above events, Marianne stated such events caused her to feel frustrated and helpless. She reported she could not do much to help her family during their times of need.

Marianne’s mother explained that she noticed Marianne had started to diet in the beginning of the summer following her fifth grade year. She did not become concerned, however, because she and other members of the family had also become self-conscious about their health and weight. Marianne’s mother did not become alarmed until she
realized Marianne was eating very little and lying about it. She also became worried when Marianne wore shorts one day and appeared very thin. Concerned for Marianne, Marianne’s mother brought her to the family pediatrician for a physical examination. It was revealed that Marianne had lost 15 pounds in a few weeks. Following recommendations of the pediatrician, Marianne’s mother repeatedly brought Marianne back to the physician’s office to monitor her weight loss and health. Despite such efforts, however, the hospital records noted that Marianne proceeded to lose almost 40 pounds by the end of the summer. Because of the significant amount of weight that Marianne had lost, she was eventually admitted to a medical hospital for stabilization.

During the course of illness, Marianne and her mother reported her lowest weight was 73 pounds. Marianne expressed she experienced fears about gaining weight. When referring to the Argyle scale and asked how she perceived her body at the time of onset, Marianne stated she saw herself as body type #6, an overweight figure. “I felt out of control and huge.” She stated she wanted to look similar to #2, an extremely thin body (see Appendix E). In particular, Marianne stated she felt her stomach was too fat. She measured her stomach daily and considered her stomach too fat if it “stuck out past my hip bones.” Marianne’s mother stated she also observed Marianne weighing herself on a scale and evaluating her body in front of a mirror daily. When Marianne perceived herself as fat, Marianne reported she felt worthless and “disgusting.” She stated she denied the seriousness of losing any significant amount of weight.

All sources revealed that Marianne initially began losing weight by cutting back on her caloric and fat intake. Eventually, Marianne’s meals consisted of a ¼ cup of
cereal, 2% milk, and 1 banana for breakfast. For lunch, she ate ½ of a sandwich without the crust that was generally made with 1 slice of turkey. For dinner, she consumed about ¼ cup of whatever food her mother prepared. In addition to restricting her food intake, Marianne engaged in excessive exercise daily. As part of her regimen, Marianne completed 200 sit-ups at least 2 times per day. She also ran around her room 800 times twice daily and repeatedly jumped and danced to music at least 2 times per day. As per Marianne’s mother, Marianne engaged in physical activity whenever possible. “She even jumped up and down as she shook her juice containers.” Marianne denied using any other methods to lose weight.

Reports from Marianne and her mother indicated that such food restriction and excessive exercise caused Marianne to develop several physical symptoms. Observable signs included severe emaciation, sunken eyes, yellow discoloration of skin, and a wasted appearance in which her bones protruded “at the shoulders and ribs.” Other observable symptoms involved loss of scalp hair, loosened, weak teeth, lanugo hair, and dry skin. Reports from Marianne revealed that her skin was so dry, especially on her hands, that her fingertips occasionally bled. In addition to the above, reports from all sources implied that Marianne also experienced several medical complications as a result of her eating disorder. They included cold intolerance, constipation, abdominal pain, dehydration, and lethargy that prohibited her from participating in physical school activities. Other medical problems embodied cardiovascular complications that included dangerous irregular heart contractions and significantly lowered blood pressure. Marianne’s linear growth had also been stunted since the course of her illness became severe. She relatively remained the
same height that she had been before her significant weight loss. Finally, Marianne’s sexual maturation had been delayed. In particular, it was reported that Marianne’s development of pubic hair and breasts respectively grew thin and reduced in size. At the time of the interview, Marianne continued to be pre-menarcheal.

Reports from all sources also revealed that Marianne exhibited symptoms of associated mental disorders. In particular, it was indicated that Marianne experienced several symptoms of depression at the onset of anorexia nervosa including occasional suicidal ideation, irritability, feelings of anger, social withdrawal, depressed mood, poor appetite, mood swings, some decreased concentration, and occasional forgetfulness. The therapist stated a secondary diagnosis of major depressive disorder was warranted because such symptoms disturbed Marianne’s functioning significantly.

It was also reported that Marianne exhibited some obsessive-compulsive features. As per Marianne, her rituals involved persistently browsing through cookbooks, watching cooking shows on television, and insisting on cooking meals for the entire family without eating what she prepared. Peculiar eating patterns included cutting food into small pieces, “the size of a finger nail,” and repeatedly warming her food in a microwave at least 15 times to overcook it so that it appeared unappealing. Marianne also revealed that she brushed her teeth at least 6 times daily to rid of the aftertaste of food. According to Marianne’s mother, other patterns entailed Marianne repeatedly spitting out food into a napkin after chewing it, and taking two hours to eat even the smallest piece of meat. Still other patterns included consistently leaving food on her plate and immediately exercising after eating any amount of food. As per Marianne’s therapist, Marianne also chose to
wait at least 3 hours between snacks or meals for fear of the calories becoming fat in her body. Marianne followed this ritual so closely that she would often choose to stay awake until one or two o'clock in the morning when she ate a late snack or meal. Marianne’s records further noted that Marianne experienced obsessive thoughts about her stomach being too fat. Although Marianne denied exhibiting obsessive-compulsive features unrelated to food, weight, or her body, her mother also explained that she repeatedly rewrote homework assignments at least four times until she thought it was perfect.

In addition to depressive and obsessive-compulsive features, it was also reported that Marianne experienced intense anxiety. In particular, Marianne revealed she experienced intense anxiety when she perceived her stomach was “too big.” Again, she denied experiencing any anxiety unrelated to her body, weight, or food.

In reference to personality characteristics, Marianne’s therapist described her as guarded and very defensive with limited insight at the onset of illness. She also described her as a perfectionist, a high achiever, a compliant person, and many times a caretaker. In inquiring with Marianne how she felt about herself during her onset of anorexia nervosa, she described her self-esteem as a “2” on a scale from 1 to 10 (“1” defined as low). Similarly, she described her sense of self-mastery over external situations a “2.” She stated she felt ineffective over environmental situations, but felt she had tremendous control over her body, particularly her stomach. In relation to her sense of self-mastery over her body, she rated herself an “8.” Reports from Marianne also indicated that she was worried and depressed about entering adolescence, especially because she had no friends. However, it was reported she would not turn back time because of the added
stress her disorder had placed on her mother. She stated she did not want to torment her 
mother with such agony again. Interpersonally, Marianne revealed she felt rejected by 
most peers because she believed she was not as “pretty” as them. She always tried to 
please them so that they would appreciate her. Because of such a sense of rejection. 
Marianne stated she did not trust others easily. Marianne also revealed she had poor 
interoceptive awareness. She reported experiencing difficulty in identifying her emotions 
and avoided expressing any emotions to others. She indicated she felt guilty when she 
imposed on others. If she felt compelled to express her personal thoughts and feelings. 
however, Marianne stated she always relied on her mother. Marianne also disclosed her 
personal goals at the time of onset. In particular, she reported she wanted to “make my 
stomach flatter and make people like me by becoming thin.” With this goal, as well as 
with any other goal Marianne established for herself, Marianne stated she pushed herself 
adamently to achieve it. According to her case records, Marianne feared making 
mistakes.

According to Marianne and her mother. Marianne experienced no birth 
complications and developed within normal limits. In school, she excelled, usually 
achieving straight A’s. At the time of the interview, Marianne was in sixth grade. She 
had no history of behavior problems at school and had no legal history or drug and 
alcohol history. Physically, Marianne was reported to be a healthy individual prior to her 
onset of anorexia nervosa with no major illnesses or surgeries.

As noted earlier, Marianne’s family of origin was composed of her natural 
mother, father, and three older brothers. One brother was 17 years old; another was 15
years old; and the youngest was 13 years old. The family lived together in a comfortable home located on the west coast. As per the mother, Marianne's father was employed as a finance specialist and the mother was employed as a secretary. The mother reported that although they earned decent income, the family struggled with outstanding debts.

Prior to the onset of anorexia nervosa, Mariarme, her mother, and her therapist described the family atmosphere as chaotic and dysfunctional. Marianne's relationship with her father was described as distant. Although Marianne had a close relationship with the oldest brother, conflicts between Marianne and the other two brothers were also reported. In reference to Marianne's relationship with her mother, Marianne described it as close. However, the therapist contradicted such a perception and indicated that their relationship was not close, but enmeshed. Marital conflict between the mother and father was also reported. Occasionally, as per the therapist, such conflict involved the triangulation of Marianne. No reports of physical or sexual abuse were made. However, Marianne indicated that at times she felt emotionally neglected and rejected by her father.

In reference to conflict, shame, and embarrassment, Marianne reported that her family tended to avoid it as much as possible. Marianne's mother supported such a claim stating that the family rarely communicated or expressed emotion to one another. When conflict did arise, case records and the therapist noted that Marianne frequently played the age-inappropriate roles of caretaker and peacemaker within the family. Such roles were often reinforced by the family members. They were also reinforced by Marianne's
tendency to take responsibility for others in an attempt to avoid her own issues. As per
the therapist, she was always the one to “smooth things out.”

According to all sources, Marianne’s family had an extensive family history of
problems in living. The youngest brother, for instance, was diagnosed with attention
deficit disorder. The father, likewise, exhibited symptoms of attention deficit disorder, as
well as anxiety. In addition, the fifteen year old brother continued to have problems with
enuresis. Marianne’s mother and another brother struggled with obesity. Finally,
Marianne’s mother, the maternal grandmother, and a paternal uncle all had histories of
depression. The paternal uncle’s depression was so severe that he was hospitalized for
attempting suicide.

Socially, Marianne reported she had one best friend. During the course of her
illness, however, they drifted apart. According to the therapist, Marianne was very
isolated from peers because she felt they did not understand her. Her only system of
support was her family. She did not belong to any social, academic, or religious
organizations. For pleasure, Marianne stated she enjoyed dancing and cheerleading. Her
records also so noted she enjoyed cooking, sports, cleaning, and reading. Because of her
intense obsession to exercise and her poor physical health, though, she had been
prevented from engaging in any physical activity until her health was restored.

As mentioned in the beginning, Marianne was initially admitted to a medical
hospital for stabilization because of the drastic amount of weight she had lost. Following
her discharge from the medical hospital, Marianne reported she was immediately
admitted to the west coast medical center’s psychiatric unit where she remained a patient
for 3 ½ weeks. Prior to this admission, Marianne had no previous psychiatric treatment history. As part of her discharge plan from the inpatient unit, Marianne attended a partial hospitalization program for 3 weeks. After completing the program, she began attending the center's eating disorders outpatient group which she was currently attending at the time of the interview.

According to the therapist, the group targeted adolescents and some older children with eating disorders. It involved both the anorectics and their parents. The individuals with eating disorders met weekly for two hours. The first hour was essentially a process group that utilized cognitive and psychological approaches. During the first hour, the therapist facilitated discussions about coping skills, family relationships, peer relationships, communication skills, social skills, and age-appropriate issues such as sexuality, dating, intimacy, and body image. Issues about food and weight were avoided. Instead, the focus was on identifying how the anorectics' restrictive behavior was a way to cope with feelings and how they could cope with such feelings more appropriately. During the second hour, the individuals with eating disorders engaged in art therapy, while their parents participated in a psycho-educational and supportive group session. During the parents' group, issues related to their children's eating disorders were addressed. Two times per month, the second hour was utilized for a multi-family group session, rather than the adolescents' art therapy and parents' group. One of the multi-family group sessions addressed nutritional guidelines. The second multi-family group utilized family art therapy wherein all members of the family used art to communicate their thoughts and feelings.
While at the medical center, case records revealed that Marianne’s treatment plan consisted of two problems and goals. The first problem was Marianne’s impaired coping. To improve her coping, Marianne’s goal was to identify one healthy coping skill. Cognitive interventions provided in the above described group were designed to help Marianne explore the dynamics of her eating disorder and develop such coping skills. The second identified problem was Marianne’s depressed mood. To help improve her mood, Marianne was to increase her awareness of the triggers that negatively impacted her mood. Increased verbalizations of feelings and awareness about her personal and family dynamics during the group process were aimed to help Marianne achieve such a goal.

In addition to participating in the weekly outpatient group, Marianne’s mother reported that Marianne participated in weekly individual sessions with another therapist from a child guidance clinic. The family also participated in weekly family therapy at the same child guidance clinic. In addition, Marianne’s mother and father participated in marital therapy. Marianne also received guidance from a nutritionist once a week and saw her pediatrician twice per week to monitor her physical health. To enhance her progress, Marianne took Prozac as prescribed by her doctor. She also took Phosphorus to improve her irregular heart contractions. At one point, Marianne had been taking 1 mg. of Risperdol nightly to reduce anxiety. However, the prescription was discontinued.

Although Marianne was still in treatment at the time of the interview, Marianne stated she felt she had made some progress towards becoming a healthy individual. She reported she felt better psychologically, but physically she struggled to gain weight. On a scale from 1 to 10, she rated her current self-esteem a “5” and her sense of self-mastery a
“5.” Both were significant improvements from the original lower ratings. Marianne’s mother and therapist also commented on the tremendous progress Marianne had made. In particular, they noted how Marianne expressed herself more and how she gained a tremendous amount of insight. According to case records, Marianne gained insight not only about the reasoning behind her eating disorder, but also about her personal and family dynamics. The therapist noted that Marianne’s entire family gained insight about the nature of Marianne’s eating disorder. According to the therapist, the family members learned new communication skills that improved their relationships with one another. Marianne and her mother, likewise, agreed that the family members had closer, more positive relationships.

Despite Marianne’s progress, several obstacles to a full recovery were identified by Marianne’s mother, her therapist, and case records. They included Marianne’s “lack of freedom” caused by her strict regimen surrounding her meals, her lack of trust and suspiciousness of other people, her tendency to be the caretaker, her advanced level of maturity that was causing her skip “childhood,” and her fears of recovery. Also identified were her inability to concentrate at school because of her preoccupation with food, and her poor physical health and stature that prohibited her from participating in physical activities at school.

Although Marianne was unable to identify her strengths as a person, her mother, therapist, and case records listed several. They included Marianne’s intelligence, empathy, kindness, increased insight, work ethic, sympathy, and understanding. As far as goals, Marianne stated her current short-term goals were to “stop spitting out and
measuring” her food. Her identified long-term goals included “trying out for the
cheerleading squad” at school and being able to “hang out with friends and family” at, for
instance, restaurants. Marianne’s mother commented that Marianne had academic goals
as well. They involved attending a well-renowned university and becoming a
psychologist. “She even mentioned writing a book about her battle with anorexia nervosa
some day,” her mother revealed.

Case Study 2: Emily

Emily was an 18 year old Caucasian female from an upper class family that
included her two biological parents and one sixteen year old sister. Her date of birth was
in October of 1979. Emily had recently graduated with honors from high school and was
currently in her first year of college. She developed symptoms of anorexia nervosa at age
17 and was diagnosed with the disorder three months prior to the interview.

At the time of the interview, Emily measured 5 feet and 10 ¼ inches tall and
weighed 97 ½ pounds. She was casually dressed in baggy clothes and appeared somewhat
young for her stated age. She had long brown hair and kept a well-groomed, natural look,
wearing almost no cosmetic make-up. Emily spoke in a soft, calm voice and in a logical,
coherent fashion. She was oriented to person, place, and time and demonstrated normal,
intelligent thought processes. Emily’s insight and judgment seemed to be fair. Her mood
and affect were appropriate and congruent. She was very cooperative during the
interview, although initially somewhat guarded. With good short-term and long-term
memory, Emily answered all questions thoroughly.
Prior to Emily’s onset at age 17, Emily reported weighing 120 pounds and measuring 5 feet and 10 ¼ inches tall. Reports from all sources indicated that Emily experienced a few life events that most likely precipitated her development of anorexia nervosa. Such events included her plans to graduate high school and move to a different state to attend college. Another event, as reported by Emily, entailed a friend’s compliment about her slender body. Such a compliment influenced Emily to believe she had to maintain her thinness so that peers would continue to notice her. One last event that was reported by the therapist involved Emily’s separation with a boyfriend of five months prior to her high school graduation.

Reports from Emily revealed that she kept her eating disorder a secret from her family and friends throughout her senior year in high school. She continued to keep the disorder hidden from others during her first college semester at an out-of-state private university. Although Emily’s parents noticed some signs such as Emily’s restriction of calories and unpredictable attitude and mood, they reported they did not become worried about Emily’s health. They did not become concerned until after a college roommate unexpectedly called them explaining that Emily had fainted one day while sick with the flu. While Emily visited her family at home during a holiday, Emily’s parents noticed that she appeared very thin and pale. Distressed about her physical health, Emily’s parents suggested she seek treatment. Considering their suggestion and concern, Emily chose to complete her first semester at the out-of-state university and then returned home to seek treatment.
During the course of illness, Emily, as well as her parents, noted her lowest weight was 96 pounds. Emily reported experiencing fears of gaining weight or becoming fat. When asked how she perceived her body during the onset of her disorder, Emily referred to the Argyle scale and stated she saw herself as body type #5, a curvy, rounded figure. She stated her goal was to look similar to body type #2, an extremely thin shape (see Appendix E). She also stated that, in particular, she believed her stomach was fat.

To measure her body shape and weight, Emily did not use a scale. Instead, she explained she used her hands to measure her quadriceps and biceps. To be more concrete, she encircled both hands around her quadriceps. If the fingertips from each hand easily touched, she considered herself to be thin. However, if her fingertips did not touch or if it was a tight fit, she felt fat. Likewise, if she was able to loosely wrap one hand around her biceps, she felt thin. If she could not, she felt fat. Emily admitted she measured herself in this fashion upon impulse. The thinner she perceived her body to be, the higher her self-esteem. Emily denied acknowledging the seriousness of losing any significant amount of weight. “I didn’t think anything bad could happen to me.”

Reports from Emily indicated she began to lose weight by slowly restricting and avoiding certain foods that were high in fat and calories. Although she never fasted, she consumed less than 1200 calories daily. Emily’s records revealed she usually ate a small bowl of Cream of Wheat made with water, or 1-2 Eggo waffles with fruit for breakfast. For lunch, she usually ate fat-free cottage cheese or 1 piece of fat-free bread with fat-free cheese. For dinner, she either ate a small baked potato or a small piece of chicken or turkey with a few vegetables. No foods were ever cooked in fat and all items were
somewhat bland. In addition to restricting calories and fat, Emily also reported completing 200 sit-ups as part of her daily exercise regimen. She denied using any other methods to lose weight.

In reference to physical symptoms and complications, Emily disclosed several features. They included obvious emaciation, pale facial discoloration, hair loss, dry skin, and lanugo hair. Complications indicated by Emily and case records entailed cold intolerance, lowered blood pressure, dizziness, occasional fainting spells, constipation, abdominal pain, lethargy, and reversed sexual maturation which involved breast size reduction. Secondary amenorrhea was another complication as a result of her low weight. Despite Emily’s menarche at age 15, she revealed her menstrual cycle was disrupted eight months prior to the interview.

Emily also reported experiencing features of associated mental disorders during her course of illness. Such features included symptoms of depression that developed after her onset of anorexia nervosa. Symptoms of Emily’s depression involved depressed mood, decreased interest in activities, and decreased energy. According to Emily’s parents, irritability was another symptom. Emily’s records further revealed occasional sleep disturbances, decreased concentration, and diminished appetite. As per Emily’s therapist, the above symptoms substantiated a secondary diagnosis of major depressive disorder.

Aside from depressive symptoms, all sources reported Emily manifested obsessive-compulsive features, most of which were related to food. The only reported obsession that was unrelated to food was Emily’s preoccupation with achieving straight
A's in school. Supporting such a preoccupation, it was explained by Emily that she persistently studied for several hours just to prepare for a "simple small quiz."

Obsessive-compulsive behavior exhibited by Emily that was related to food encompassed repeatedly reading and memorizing nutrition books, cooking books, and recipes. Eating patterns and rituals included eating alone in an attempt to hide the eating disorder from others, and eating the same foods in the same order at the same time every day. When eating, it was reported Emily cut her food into small pieces or used her hands to pick at the food. Emily’s parents also explained that Emily ate only the center of meat, supposedly avoiding any fat on the outer trim. It was further revealed by Emily that she never placed what she considered to be large amounts of food on her plate at one time. To fool herself into thinking she was eating enough, Emily reported she placed only a small portion of food on her plate and returned for "second and third helpings."

Aside from the above, Emily reported experiencing intense anxiety over food. She experienced fear of gaining weight and being forced to eat. Such anxiety was likewise, reported by her therapist. No anxiety unrelated to food was revealed.

Reports from Emily and her therapist revealed many of Emily’s personality characteristics. For one, it was indicated that Emily was a perfectionist and a compliant person. It was also reported that she had the need to please others. Reports from the therapist further revealed Emily’s difficulty of expressing any negative emotions to others for fear of hurting their feelings or creating problems. Emily even experienced guilt about her disorder because she feared she was causing her parents to excessively worry about her. Anxious about pleasing others, Emily experienced poor interoceptive
awareness. She was often times unable to identify and ask others for her own emotional needs. On a scale from 1-10 ("1" defined as low), Emily rated her self-esteem during the onset of her illness a "5." She reported feeling somewhat good about herself when she began to restrict her caloric and fat intake. She rated her sense of self-mastery and effectiveness, however, a "2," stating that she felt she had little control over her external situations during her onset. In addition to the above, Emily revealed she felt scared about entering adulthood. If she could, she stated she would remain a teenager. Interpersonally, Emily stated she related with others well. However, she was sometimes initially skeptical of others. As far as her goals at the onset of illness, Emily reported she set high standards for herself and became upset when she did not achieve those standards. Two of her goals, in particular, were to graduate high school and attend college.

According to Emily's parents, Emily experienced no birth complications and developed within normal limits. She was always an "A" student in school, graduating from high school with a 4.0 grade point average. She was never in trouble with the law and denied any drug or alcohol use. Physically, she was healthy prior to her onset of anorexia nervosa. The only reported incident was a broken finger that occurred at an early age.

As noted above, Emily's family of origin consisted of her natural father, mother, and 16 year old sister. Case records revealed that the two parents had been married for 20 years. Both parents were physical therapists and each owned their own private practice. Prior to becoming a physical therapist, records revealed that Emily's father was a retired professional baseball player.

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All sources reported that the family members had close relationships with one another. Supporting such a claim, Emily described how the family members occasionally went on outings together. Emily also reported she felt comfortable expressing herself to all her family members. She especially felt close to her younger sister.

Although the family was described as close, all sources reported that the family tended to avoid and ignore any conflict, shame, or embarrassment when it arose. Emily, in particular, discussed how her parents hid problems from her and her younger sister. The therapist, as well, revealed that Emily many times had difficulty expressing her needs to her family members. She often times played the caretaker role within the family, ignoring herself.

In regards to Emily's family history, Emily reported that her maternal grandfather may have exhibited some symptoms of depression. However, nothing was ever substantiated. The hospital records also revealed that Emily's father had some minor problems with gambling in the past that were soon resolved. Aside from the two reports, there were no reported significant accounts of eating disorders, depression, substance abuse, or any other mental health issue. There was no reported history of sexual, physical, or emotional abuse either.

Socially, Emily and her parents stated she had three close friends from high school. According to her parents and group therapist, however, Emily distanced herself from the three friends during her course of anorexia nervosa. She did not belong to any social, academic, professional, or religious organizations. Emily's only outlet involved
occasionally attending a Christian church for Sunday services. For pleasure, Emily revealed she enjoyed writing in her journal and watching television.

Emily had no prior treatment history before her onset of anorexia nervosa. Upon returning home from the out-of-state university, Emily reported she initially sought outpatient counseling from a psychologist at a local university for several weeks. Because she was unhappy with the therapeutic relationship, however, she reported she discontinued counseling with the psychologist. Instead, she sought treatment at the west coast medical center.

As per Emily and her parents, Emily’s treatment at the west coast medical center involved a team that included a psychologist, a psychiatrist, a social worker, a nutritionist, and a physician. Emily met with each practitioner on a regular basis in order to monitor and maintain her progress. According to Emily’s records, Emily’s clinical treatment plan consisted of two problems and two goals. One identified problem was Emily’s mood instability. The related goal was to increase Emily’s awareness of individual and social situations that negatively impacted her mood. The second identified problem was Emily’s impaired coping. The related goal was for Emily to identify the coping skills that had not worked for her in the past.

To achieve the two goals, Emily participated in individual therapy that utilized psychodynamic and cognitive-behavioral approaches. During individual therapy, issues such as Emily’s perfectionism, need for control, “black and white” thinking, relationships with friends, and family background were addressed. In addition, Emily’s expectations of herself, her distorted thinking patterns, and ways to shift her need for control over food
to “getting better” were discussed. Aside from individual therapy, Emily and her parents participated in the same weekly outpatient program as discussed in Marianne’s case. As with Marianne and her family, issues such as self-image, family roles, self-expression, and separation and individuation vs. togetherness were discussed during group therapy. To enhance Emily’s progress, Emily took 75 mg. of Luvox daily as prescribed by her psychiatrist.

Although Emily was still participating in treatment at the time of the interview, Emily reported she had made some progress towards becoming a healthy individual. She reported she was eating 1200 to 1300 calories daily. She also reported feeling better emotionally and psychologically. She stated she had admitted she had a problem and wanted to become more healthy. “I want my mind to heal,” she stated. Her parents, as well, noted that Emily had made some progress. They commented that they no longer feared her dying.

Despite what progress she had made, however, Emily continued to struggle to gain a significant amount of weight. She also struggled to increase her self-esteem and sense of self-mastery. In rating her current self-esteem at the time of the interview, Emily rated herself a “4” on a scale from 1 to 10 (“1” defined as low). Similarly, she rated her sense of self-mastery a “1.” She commented that although her self-esteem and sense of self-mastery were higher during the onset of anorexia nervosa, as time passed her disorder overcame her and caused her to feel more depressed and ineffective. Emily’s therapist also commented that Emily had much progress to make. According to the therapist, Emily was somewhat unwilling to give up her symptoms of anorexia nervosa.
because of the tremendous attention she was receiving from her family and others. In a sense, her symptoms were allowing her to be emotionally empowered within the family, causing members of the family to be overly sensitive to her needs. As described by the therapist, Emily's family members “tip-toed on eggshells” so as to prevent her from regressing. Limitations to continued progress identified by Emily’s parents and therapist included her persistent obsessions with food, rigid meal times, lack of insight, and continued strong avoidance of negative emotions.

Strengths identified by her parents and therapist encompassed her determination, loyalty, intelligence, articulate language expression, and ability to empathize others’ feelings. Similarly, Emily stated her strengths as a person included her intelligence, loyalty, and sensitivity to others’ feelings and needs. She reported her short-term goals were to “feel normal about food” and feel as if she “was deserving of food and a normal life.” In reference to her long-term goals, Emily stated she “wanted to be free of the disorder so I can move on.”

Case Study 3: Anita

Anita was a 41 year old female born and raised in Argentina. Her date of birth was in June of 1956. She moved to the United States about 20 years prior to the interview. Anita had a husband of 15 years and had a 17 year old son. Her family of origin consisted of her biological mother, her older sister, younger brother, and deceased father. Both her family of origin, who continued to live in Argentina, and her current family constellation were considered to have a lower to middle class socioeconomic status. Anita’s last completed level of education was high school. She was employed as a
part-time Spanish-speaking interpreter within the local metropolitan area. Anita was diagnosed with anorexia nervosa, the purging type, around age 36. She had been seeking outpatient counseling for several years and was hospitalized for severe malnutrition about one year prior to the interview.

At the time of the interview, Anita was 5 feet and 6 inches tall and weighed 105 pounds. She was casually dressed in loose jeans and a baggy sweatshirt. Although she seemed to be her stated age, she maintained a simple appearance by wearing very little cosmetic make-up and pulling her hair back in a "pony-tail." During the interview, Anita was oriented to person, place, and time. Her mood and affect were appropriate and congruent. She spoke clear and coherently and demonstrated normal thought processes. Her judgment was poor, but her insight and memory were adequate. Although Anita was cooperative during the interview, she was initially very suspicious and guarded, disclosing only superficial information. At her request, some of the details of her personal and family history have been left vague.

Prior to losing weight, Anita reported she stood 5 feet and 6 inches tall and weighed 125 pounds. She claimed she had always been self-conscious of her weight and body since she was a child. She explained how she even chose to be a vegetarian growing up in Argentina. As she grew older, Anita reported she continuously battled to lose weight. "The most I ever weighed was 165 pounds...I will never forget that!"

Although Anita claimed she could not recall any specific life events that triggered her onset of anorexia nervosa, her psychotherapist shared details of some troubled times Anita had experienced with her husband just prior to her onset. Such stressful times

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included financial difficulty, poor familial relationships, an unexpected and undesired separation from her husband, and drug and alcohol dependence. Such chaos caused Anita to feel ineffective over her environmental situations and most likely precipitated her disorder.

Anita explained that since she lived in Argentina she had occasionally seen a therapist for outpatient counseling. She continued to seek counseling from therapists in the United States to help her cope with certain life issues. When she developed symptoms of anorexia nervosa she, likewise, sought counseling from a therapist. In fact, Anita reported she maintained a therapeutic relationship with one particular therapist for over two years. To her surprise, this therapist eventually placed Anita on a 72-hour hold at a nearby medical hospital one year prior to the interview. Anita admitted the therapist placed her on the hold because of her regression and persistence to lose more weight. Such low weight endangered Anita's life.

Anita revealed her lowest weight was 99 pounds. She admitted she felt fear about gaining weight and becoming fat. According to her psychotherapist, Anita even held some odd beliefs about food, perceiving it as “dirty” and “disgusting.” She feared that if she ate food, she too would become “dirty” and “disgusting.” At the time of her onset, Anita recalled she saw herself as body type #4 on the Argyle scale, a curvy body. She stated she wanted to look similar to body type #2, a stick-like figure (see Appendix E). In describing what parts of her body she felt were too fat, she reported she was globally overweight. She revealed she measured her weight and body shape by weighing herself on a scale daily and feeling the way her clothes fit on her body. If the clothes felt tight
around her body, she considered herself to be fat. The less weight she weighed and the
looser her clothes fit, the higher was her self-esteem. Reports from Anita indicated she
denied any seriousness of losing a significant amount of weight.

Anita explained she primarily dieted to lose weight. According to Anita, her daily
food intake consisted of 1 ½ pieces of fruit, a few slices of bread, and a couple handfuls
of cereal. She ate nothing more. In addition to dieting, she admitted she induced herself
to vomit. During the onset of her illness, she self-induced vomiting at least 5 times daily.
As time passed, however, Anita explained she self-induced vomiting only occasionally.
Anita, as well as case records, noted she also infrequently binged on food. However,
according to her psychotherapist, such “binges” consisted of eating three or four handfuls
of cereal, rather than just two. Anita also admitted to using laxatives. Her records noted
the same, revealing she used herbal teas as laxatives at least 2 times daily. Anita,
likewise, admitted to using diuretics daily and denied using anything else. Her
psychotherapist, however, added that she used diet pills daily, as well.

In regards to physical signs and symptoms, Anita reported she experienced very
few symptoms. Her only identified symptoms were some dental enamel erosion, some
swelling of the glands, constipation, cold intolerance, lethargy, and reversed sexual
maturation. The reversed sexual maturation involved the reduction of her breasts and
secondary amenorrhea. Despite experiencing her menarche at age 15, Anita and her
records revealed her menstrual cycle was disrupted thirteen months prior to the interview.
In addition to the symptoms noted by Anita, the psychotherapist and case records
reported a few other symptoms. They included headaches, yellow discoloration of the
skin, edema of the ankles, malnutrition, and an emaciated appearance. No other medical complications were reported.

Reports from all sources also revealed several symptoms of associated mental disorders that Anita had experienced during the course of anorexia nervosa. For example, Anita reported experiencing symptoms of depression. The symptoms included suicidal ideation, depressed mood, social withdrawal, irritability, and decreased interest in hobbies and activities. Anita's records supported such a report, adding that Anita also experienced sleep disturbances, feelings of anger, mood swings, decreased concentration, and decreased energy. Anita’s psychotherapist noted that such symptoms warranted a secondary diagnosis of major depressive disorder.

In addition to depression, Anita and her records also revealed she experienced obsessive-compulsive features. She reported she experienced obsessions about food. She also admitted to particular eating patterns or rituals. Such patterns included nibbling on 1 apple or 1 slice of bread the whole day, and using her hands to eat. Another pattern, as reported by the psychotherapist, involved walking around or sitting on a couch while eating. Anita never consumed an entire item in one sitting and never sat at a table to eat. Other rituals reported by the psychotherapist included throwing food away in the trash when Anita felt she ate too much. She also refused to keep food that was not part of her daily regimen in the house. If her husband or son wanted to eat, they were forced to eat out at a restaurant or fast food joint. It was also explained that Anita refused to leave her house at certain times because of her loose bowels and excessive urine caused by the laxatives, diuretics, and diet pills. If she was not home at the certain times, she
occasionally experienced panic attacks. Anita also took sleeping pills so that she would sleep and not eat food. Finally, it was revealed that Anita refused to keep a scale in her house. To weigh herself, she went to various stores or supermarkets that carried scales for sale or on display. Rather than weighing herself at just one place, however, she weighed herself consecutively at several places in one day because the stores carried unreliable scales that measured weight inconsistently. No obsessions or compulsions unrelated to food were noted.

Aside from the above, Anita admitted experiencing intense anxiety about food. In particular, she worried that if she ate any food item outside of her daily regimen, she would not be able to stop eating. As mentioned earlier, she also experienced occasional panic attacks when she was not home at particular times of the day. Such reports were confirmed by both Anita’s psychotherapist and records as well.

Finally, Anita admitted she experienced problems with impulse-control, particularly related to drug and alcohol abuse. She reported she used cocaine and alcohol daily prior and during her onset of anorexia nervosa. No other behaviors related to poor impulse-control were reported.

In reference to Anita’s personality characteristics, her psychotherapist described her as very rigid, and controlled by her eating disorder. She was also described as very isolated and persistent. In rating her self-esteem during the onset of her illness, Anita rated herself an “8” on a scale from 1-10 (“1” defined as low). Contradicting such a rating, case records revealed Anita did not feel deserving of anything—not even new clothes. On the other hand, Anita rated her sense of self-mastery a “1” or “2,” noting that
she did not feel effective as a person. According to her records, Anita believed she was a failure at everything—even her own disorder. Anita and case records also revealed that she was afraid of growing up. She stated she always wanted to remain a little girl. In terms of her social skills, Anita indicated she related well with others. She also reported she generally trusted others once she became familiar with them. Despite any trust, however, Anita noted she always found herself trying to please everyone, including her husband. She rarely expressed her needs to anyone for fear of displeasing them. When she did express herself, she usually confided in her therapists. In reference to emotions, Anita reported she had poor interoceptive awareness. She admitted she had difficulty identifying emotions she was feeling. She stated she commonly felt confused as to why she felt certain ways. With regards to goals at the onset of her eating disorder, Anita stated her only goal was to lose weight. She denied setting any other goals for herself.

Reports from Anita revealed she experienced no birth complications. She reported she developed within normal limits as well. While in school, Anita noted she always had poor concentration and poor grades. Her highest level of completed formal education was high school. While in Argentina, Anita stated she was employed as a dental assistant. When she moved to the United States, she trained to be a medical assistant but discovered she felt uncomfortable working with needles. Using her knowledge in the medical field, Anita reported she then became a physical therapy assistant. After some time, Anita noted she was then employed part-time as a Spanish-speaking interpreter. She continued to be employed as an interpreter at the time of the interview. Anita denied ever being arrested or in trouble with the law. However, as
mentioned earlier, she did admit to drug and alcohol dependence. Physically, Anita reported she was relatively healthy prior to her onset of anorexia nervosa. Her only reported previous surgery was an appendectomy. No major illnesses were noted.

According to Anita, her family of origin consisted of her natural father, mother, an older sister, and a younger brother. As per Anita and her records, her natural father died from a heart attack at age 40 when Anita was 16 years old. At the time of the interview, her mother, brother, and sister continued to reside in Argentina. Anita reported that her relationships with members of the family had improved since she moved to the United States. However, while she lived in Argentina, Anita described the relationships as conflictual. Anita’s psychotherapist noted that Anita’s mother often made her feel inferior because of her poor school performance. Reports from Anita also indicated that her family rarely communicated openly about conflict, shame, or embarrassment. When conflict was addressed, it usually concluded in a shouting match. Reports from case records, likewise, revealed that Anita occasionally made somatic complaints to family members in an effort to get her needs met. No reports of physical, sexual, or emotional abuse were noted. The only reported family history of mental health problems was Anita’s maternal grandfather’s history of depression.

Anita’s current family constellation at the time of the interview consisted of her husband and 17 year old son. Although she had been married to her husband for 15 years, Anita stated they had been together for a total of 20 years. At the time of the interview, Anita reported that her relationship with her husband was improved. However, during her onset of anorexia nervosa, she admitted she had some problems with her
husband. For one, she and her husband were both drug and alcohol users. In addition to cocaine, Anita noted her husband also abused heroin and a number of other drugs. Their life together with their son was often chaotic and "on the edge." Anita stated her husband also never listened to her or met her needs. They rarely communicated to each other. When conflict, shame, or embarrassment arose, Anita’s psychotherapist noted that the family demonstrated poor conflict-resolution skills. Generally during conflict, Anita became passive, her husband became militant and stern, and their son “blew up.” Compromised resolutions were never reached. Anita’s records noted that, in a sense, Anita was using her symptoms of anorexia nervosa to control and change the manner in which her husband and son related to her.

Outside of her family, Anita reported she had no friends. Although the records noted that Anita had a Jewish background, Anita denied belonging to any social, academic, professional, or religious organizations or groups. Anita’s only system of support was her therapist. As noted in her records, Anita even struggled to maintain a job because of fears that it would interfere with her eating rituals. For pleasure, Anita stated she enjoyed reading.

In reference to Anita’s treatment history, it was previously discussed that Anita regularly sought counseling to cope with certain stressors throughout her life. She was eventually admitted to a hospital for medical stabilization about one year prior to the interview. According to Anita, she was hospitalized for 5 days and then discharged to a partial hospitalization program. After completing the partial hospitalization program, she continued with an intensive outpatient program. After several months, her level of care
was reduced. At the time of the interview, she was participating in weekly individual therapy with her psychotherapist. Anita and her therapist reported that, initially, her husband was involved in her treatment and regularly attended sessions. However, as time lapsed, her husband rarely participated. Likewise, Anita’s son was not involved in her treatment. Instead, he sought outpatient counseling from a different therapist to resolve his own issues and provide him with support.

According to Anita’s treatment plan, the identified problems were Anita’s impaired coping, her depressed mood, and her social isolation. Logically then, her goals included achieving an improved coping style, an improved mood, and decreased isolation.

To achieve the goals, the psychotherapist utilized cognitive-behavioral and psychodynamic approaches in treatment. According to case records, issues such as Anita’s marital and family relationships, anxiety, feelings of guilt and shame, distorted body image, social isolation, and the need to separate food from feelings were discussed. Anita’s feelings of alienation from her family, her need for external validation, her tendency to hide negative feelings from others, her rigidity, and her feelings of emptiness were also discussed. In addition, alternative healthier coping skills, triggers of her depressed feelings, and obstacles of social interaction were reviewed. Other issues repeatedly addressed included the health risks of Anita’s eating disorder, her fear of recovery, and Anita’s tendency to self-sabotage her progress.

To enhance the progress of treatment, Anita regularly saw a physician to monitor her health. She also took Prozac, Trazadone, and Klonopin as prescribed. Her medical
records indicated she had previously been prescribed several different medications including Paxil, Doxipen, Desipramine, Trazadone, BuSpar, Risperdal, and Benadryl. They were all discontinued because they proved to be ineffective. Fortunately, as per Anita, she found her current medications to be helpful.

Anita reported that the plethora of counseling was positive. She stated she gained tremendous insight about herself and her life. She also reported that her self-esteem and sense of self-mastery improved, although they varied daily. Despite such progress, however, Anita blatantly reported that she was “not ready to give it up (meaning her symptoms of anorexia nervosa).” Anita’s records and psychotherapist confirmed such persistence. According to case records, Anita was unwilling to change. She feared if she relinquished her symptoms of anorexia nervosa, she would have “nothing left.” She was also in denial of the severe health risks that her continued deterioration posed. Notes in the records indicated that perhaps Anita wished not to outlive her husband because of her great dependency on him and fear of living without him.

In terms of strengths and limitations, Anita’s psychotherapist indicated that Anita’s social isolation and fear of recovery posed the greatest problems for her. Her strengths, on the other hand, included her amiability and great capacity for insight. Anita’s records, likewise, contained a list of strengths. They included her intelligence, insight, and initial support of her husband. The only strength that Anita identified about herself was that “I know where I stand...I know what I am doing.” Anita reported she had no short-term or long-term goals. “I am not ready,” she explained.
CHAPTER 5

DISCUSSION

General Discussion

In response to the original research question that posed to examine similarities and differences between early and later onsets, the findings revealed many commonalities between the two onsets. First of all, the three subjects presented with many similar demographic characteristics. For example, all three were females. All three were also born and raised in industrialized countries (The United States and Argentina) that were influenced by Western values and beliefs. Such findings supported the view that children with anorexia nervosa present with many of the same demographic characteristics as adolescents and adults (American Psychiatric Association, 1994; Hsu, 1990).

The three subjects also revealed similar diagnostic features. For instance, all three subjects demonstrated a refusal to maintain body weight at or above the normal weight for their age and height. All three also reported fears of gaining weight or becoming fat. Although it was somewhat difficult to assess, they all experienced disturbances in the way they perceived their body shape, complaining that they were globally overweight or that their stomachs were extremely fat. In choosing a body type from the Argyle scale that resembled their own, they all chose body types that, according to other reports, were inaccurate. They also all reported that their body weight and shape greatly influenced
their self-esteem. In addition, they all reported denial of the seriousness of losing a drastic amount of weight. Finally, those who were post-menarcheal experienced secondary amenorrhea. All the above similarities upheld the postulation that children exhibit similar diagnostic features as adolescents and adults with anorexia nervosa (American Psychiatric Association, 1994; Blackman, 1996).

The findings also defended the theory that children with anorexia nervosa manifest similar features of associated mental disorders as their older counterparts (Fosson et al., 1987; Lask & Bryant-Waugh, 1992; Minnes et al., 1993). Perhaps the most pronounced disorder that supported such a theory was the substantiated secondary diagnosis of major depressive disorder among all subjects. Obsessive-compulsive features and intense anxiety were also reported by the three subjects. The majority of manifestations were related to food, body weight, and shape, and none of them warranted a secondary diagnosis. Such an added finding upheld the speculation that symptoms of obsessive-compulsive disorders and anxiety disorders are rarely unrelated to food, especially among children (Fosson et al., 1987; Hsu, 1990).

In addition to the above, the findings also upheld the idea that children demonstrate many of the same personality characteristics as adolescents and adults with the disorder (American Psychiatric Association, 1994; Casper, 1995; Hsu, 1990; Thurstin, 1992). Common personality characteristics found among the three subjects included the tendency to please others, the unwillingness to express negative emotions or needs to others, the tendency to take responsibility for everybody else, and the inclination to be initially untrusting of others. Other similar characteristics included the need for
external validation, a sense of ineffectiveness, difficulty in identifying and taking ownership of feelings, the tendency to be highly critical of themselves, limited social spontaneity, and very rigid, inflexible thinking patterns. Other common characteristics exhibited by the two younger subjects included a high degree of compliance, perfectionism, an orientation around high achievement, and the tendency to set very high standards and goals for themselves.

In reference to the etiology of early and later onsets, it was difficult to assess whether any reported factors were causes of the disorder or simply consequences of it because of the retrospective nature of the study. Regardless, however, the three subjects reported some common factors. Such factors included the subjects' personality characteristics, as described above. As reiterated in previous literature, such disturbances predispose many individuals, regardless of age, to the development of anorexia nervosa (Strober, 1981).

Findings also supported the speculation that children's families exhibit similar predisposing dysfunctional family transactional patterns and characteristics as the families of adolescents and adults (Hsu, 1990; Jacobs & Isaacs, 1986; Minuchin & Fishman, 1981; Minuchin et al., 1978; Palazzoli, 1974; Wren & Lask, 1993). In particular, all families demonstrated poor conflict-resolution and rigidity. Patterns of overprotectiveness were also noted among some families. Marianne's family, in particular, exhibited patterns of enmeshment and occasional triangulation. The family members of Marianne were also outwardly self-conscious about their health, fitness, and weight. The utilization of somatic complaints to communicate needs was reported within
Anita's family. Finally, Marianne's family revealed an extensive family history of depression and other problems in living. Anita's family, likewise, had a history of depression.

The three subjects were also similar in that none reported a history of abuse. Although Marianne reported she felt somewhat emotionally rejected by her father prior to her onset, there were no reports of physical or sexual abuse. Such absence supports the few studies that have suggested the link between sexual abuse experiences and anorexia nervosa is weak (Finn, Hartman, Leon & Lawson, 1986; Lask & Bryant-Waugh, 1992; Pope & Hudson, 1992).

Unfortunately, this study contained no reliable or valid method to measure the presence of predisposing sociocultural factors. However, the researcher found it peculiar that all three subjects reported they wished to look similar to body type #2, a stick-like figure, on the Argyle scale. It is possible that such an ideal was influenced by the vast number of advertisements and media productions that portrayed extremely thin models as beautiful (i.e., the supermodel, Kate Moss, from the Calvin Klein campaign).

Two other similarities were found between early and later onsets. The first involved the occurrence of precipitating factors. Findings supported the postulation that children, adolescents, and adults with anorexia nervosa experience some degree of precipitating life events. Such life events have been suggested to commonly involve anxiety about entering adolescence or adulthood, separations from or losses of significant people, and changes in life patterns (Casper, 1995; Crisp, 1980; 1997; Gowers et al., 1991; Margo, 1985; Morgan & Russell, 1975; Wren & Lask, 1993). Although the three
subjects experienced different degrees of life events and stress, some commonalties were found that supported the above conjectures. First of all, it was found that all three subjects manifested fears of entering adolescence or adulthood. Aside from verbal reports of fear, all three appeared very plain, wearing little or no cosmetic make-up in an attempt to maintain a young, childlike appearance. It was also revealed that all three subjects experienced some sort of real or anticipated separation from significant people. Marianne, for instance, anticipated parental separation and divorce. Likewise, Emily experienced a break-up with her high school boyfriend. She also experienced a change in her life pattern—moving away to college. Anita, too, experienced separations from significant people. One was an unexpected and undesired separation from her husband. The other was a separation from her family of origin when she moved from Argentina to the United States.

The last similarity found among the three subjects was the presence of certain perpetuating factors. Although the subjects differed in some respects, it was revealed that the eating disorders of all three were perpetuated by their continued rigidity, social isolation, reduced interest in favorite activities, and fear of recovery. Their fear of recovery, in particular, was reinforced by the attention they received and their avoidance of interpersonal and intrapersonal matters that most likely precipitated their illness. Such findings defended the theory that children with anorexia nervosa are affected by similar perpetuating factors as adolescents and adults (Garner, Vitousek, & Pike, 1997; Minnes et al., 1993; Wren & Lask, 1993).
Despite the many revealed similarities between early and later onsets, the findings also indicated some differences. For instance, the findings supported the conjecture that children with anorexia nervosa may engage in significantly more excessive physical activity than their older counterparts (Casper, 1995). Such support was demonstrated by Marianne’s tendency to exhibit significant overactive behavior defined by her consistent jumping, cleaning, running around, and dancing. Such overactive behavior has not always been noted in previous literature. As suggested by Casper (1995), such a symptom is sometimes characteristic of children with anorexia nervosa and caution should be made because it is often mistaken for hyperactivity.

The findings also supported the suggestion that children are more likely to develop more severe medical complications. Although all subjects experienced some of the same symptoms such as lanugo hair, yellow discoloration of the skin, cold intolerance, constipation, and reversed or delayed sexual maturation, Marianne appeared to experience the most medical and physical complications. For instance, she experienced more severe cardiovascular complications, as well as emaciation. She also experienced dehydration, a greater depletion of energy reserves, and growth impairment. As noted in previous literature, such severe complications are common because of the lower percentage of body fat that children maintain in comparison to their older counterparts (Casper, 1995; Fosson, de Bruyn, & Thomas, 1993; Gowers et al., 1991; Hodes, 1993; Treasure & Thompson, 1988).

In contrast to the two older subjects, Marianne also appeared to experience a lower self-esteem and a greater sense of rejection prior to her onset. Such differences of
self-evaluation have not been found in previous literature. Perhaps, however, the lower self-esteem and greater sense of rejection were shaped by the tremendous amount of external stressors Marianne experienced prior to her onset. As noted above, even though the three subjects experienced similar types of precipitating life events, they experienced different degrees of stress. Aside from the anticipation of parental divorce, Marianne also experienced on-going family turmoil, and the teasing of siblings and peers. She also felt helpless in regards to her mother’s unexpected diagnosis of diabetes and kidney problems. Throughout all of the situations, she was thrown into the role of caretaker and peacemaker. It could be argued that Marianne’s experiences were more overwhelming than the other subjects’ not only because of the multiple events experienced, but because of her young vulnerable age.

Finally, the findings defended the theory that children with anorexia nervosa are more likely to experience better outcomes than adolescents and adults (Bruch, 1973; Crisp, 1980; Crisp, Kalucy, Lacey, & Harding, 1977). Although it was difficult to assess the subjects’ outcomes at the time of the interview since they were still undergoing treatment, reports indicated that Marianne and her family were making the most significant progress. It could be that such progress occurred because of the immediate, intensive, and comprehensive treatment the family received (Bryant-Waugh & Lask, 1995; Kreipe, Churchill, & Strauss, 1989). As suggested by several researchers, such immediate, intensive, and comprehensive treatment is necessary when treating children with anorexia nervosa (Lask, 1993). Perhaps, such tremendous progress was also attributed to the fact that Marianne’s treatment included family therapy. As reiterated by
several studies, family therapy tends to be more effective when working with anorectic children, as well as adolescents (Dare, Eisler, Russell, & Szmukler, 1990; Le Grange, 1993; Robin, Siegel, Koepke, Moye, & Tice, 1994; Russell et al., 1987)

**Limitations of Study**

Several limitations of this study should be noted. First of all, the general research design—case studies—tends to place limits on reliability. In areas where an anorectic’s responses differed from the responses given by parents, therapists, and/or hospital records, caution must be taken. For, the responses of any respondent may be biased by his/her own personal experiences, values, beliefs, and cultural background, rather than objective observations and facts. Similarly, differences of character, life experiences, and convictions between the respondent and researcher may have come into play, causing the researcher to misinterpret interviewees’ responses and behavior.

The general design of a case study also limits generalizability. Due to the personal and comprehensive nature of the study, the findings obtained by the researcher may not necessarily be replicated by another researcher. Furthermore, the small (n=3) nonrandom sample itself cannot be generalized to any population of anorectics because of the possibility of uncontrolled extraneous factors within each individual.

In addition, limitations were also placed on the study by the out-of-state residency of the subjects. Due to budgetary constraints, the researcher was restricted to gathering all of the subjects’ data within one three-day period. Such time constraints limited the number of interviews conducted by the researcher. If money and time allowed, the
researcher would have preferred to interview additional family members, physicians, teachers, friends, and other practitioners.

The concern of sensitivity, anonymity, and confidentiality also placed limitations on the study, particularly on the description of Anita's case. As mentioned earlier, the adult with anorexia nervosa requested that the researcher avoid revealing some of the shameful details of her personal and family history. Respecting her request, the researcher was unable to present a comprehensive, detailed portrait of Anita that may inevitably hinder readers' intimate understanding of an adult onset.

In addition to the above, limitations were also placed on the study by the retrospective nature of some of the interview questions. For instance, it was somewhat difficult to assess the accuracy of subjects' body image perception prior to their onset. Although the researcher utilized the Argyle scale to assess their perception at the time of onset, there was no measure to detect if such responses were biased by current perceptions and beliefs. Because of such doubt, the researcher relied on reports of others. Again, however, others' responses may have been biased by their own subjective experiences. The retrospective nature of some of the questions also placed limitations on deciphering etiological factors of the eating disorder. Frequently individuals experience a loss or distortion of memory over time, and are unable to recall accurate accounts of past events, thoughts, or feelings. Therefore, although respondents reported some possible causal factors, no causation could be inferred because of the possibility that such reports were imprecise.
In comparing similarities and differences of the subjects, the study also lacked a control group making it difficult to determine if the responses given by the subjects were characteristic of individuals with anorexia nervosa, or just typical of their specific age cohort. For instance, it was difficult decipher if the child’s increased physical activity was a characteristic of children with anorexia nervosa, or simply an attribute of children in general. Likewise, it was perplexing to ascertain if the subjects’ responses concerning their perceived and ideal body shape were features of anorectics or typical responses of any child, adolescent, or adult.

Finally, the study lacked any inquiry of possible sociocultural influences at the macro level, such as Western values, ascribed gender roles, and the media. Because of such a deficiency, there was no reliable measure to evaluate the role of such influences. Any inferences made were based on the researcher’s subjective beliefs, which undoubtedly have limited reliability.

**Implications for Social Work**

The vast amount of information revealed in this study about early- and later-onset anorexia nervosa projects numerous implications for social work. The first implication is applied to social workers’ role in developing and implementing social policies. Current legislature fails to provide equal health insurance coverage for eating disorders and other mental illnesses. Although some states have passed some sort of parity legislation, most have excluded eating disorders from such bills. Therefore, people who suffer from anorexia nervosa and bulimia nervosa receive significantly less coverage than those suffering from other mental or physical illnesses. Because of such insurance
discrimination, individuals with eating disorders are left with higher treatment costs, the inability to obtain adequate treatment, and greater personal and family turmoil (National Association of Anorexia Nervosa and Associated Disorders, 1997). Acknowledging that eating disorders can be detrimental to individuals, especially children, social workers are given the challenge to alleviate such injustice and assure equal health insurance rights to all individuals, especially those with eating disorders.

Another implication for social work is the challenge of developing measures to prevent the development of anorexia nervosa, especially among at-risk populations. Currently, preventative measures are scarce. As noted by Casper (1995) and Halmi (1995), primary prevention can involve the coordination of schools, family practices, parent-teacher associations, and clinical agencies to provide education about eating disorders to the public, particularly parents and children. It can also involve the publication and distribution of literary material about the signs and symptoms of eating disorders. Primary prevention can also entail pressuring popular media to enforce ideals of health, rather than thinness. The media should be encouraged to follow the lead of other famous magazines such as “Shape,” “Jump,” and “Self.” These magazines, although few, target the youth and portray ideals of healthy bodies, rather than skinny ones.

One other implication for social work applies to social workers’ role of enhancing problem-solving and coping capacities of people. The information revealed within this study increases social workers’ knowledge about anorexia nervosa, especially within children. In particular, the information revealed several differences of early-onset
anorexia nervosa suggesting that social workers need to make efforts to develop appropriate treatment plans which take into account such variance. Being aware of the differences allows social workers to better enhance the coping capacities of not only the individual with anorexia nervosa, but also their family system.

**Future Research**

Findings presented in this study highlight an important addition to the existing knowledge base of early- and later-onset anorexia nervosa. However, due to the lack of generalizability of the study, subsequent research is warranted. In particular, what is essential are more empirical, quantitative, rigorous studies that entail significantly larger random sample sizes, and experimental designs with control groups to infer causality. Further qualitative studies are imperative, as well, to continue the examination and exploration of eating disorders.

Such research is needed to test the study’s findings that related directly to the research question exploring similarities and differences of early- and later-onset. Additional research is also needed, however, to examine several findings that were not associated with the study’s research question, but related to other concepts of anorexia nervosa. For instance, it was discovered that Emily’s symptoms of depression did not develop until after her onset of anorexia nervosa. This decree has implications on the causal role of depression. It was also reported that Anita exhibited problems with impulse-control, specifically related to drugs and alcohol. Such impulse-control problems have been noted to be common among individuals with the binge-eating/purging type of anorexia nervosa (American Psychiatric Association, 1994). Finally, it was indicated that
Anita's adult onset was preceded by a multitude of events accompanied by a tremendous amount of chronic stress. This finding has been reiterated in previous literature (Mynors-Wallis, Treasure, and Chee, 1992; Ryle, 1936b).

In addition, there were various unexpected findings among the subjects that did not relate to the research question, but warranted further investigation because they peculiarly contradicted previous literature. Such unexpected findings included the fact that Anita came from a lower socioeconomic background. As most studies have reported, anorexia nervosa commonly develops among higher social classes (American Psychiatric Association, 1994). Another contradiction was Anita's lack of high achievement orientation. According to most studies, a high achievement orientation is very characteristic of individuals with anorexia nervosa (Casper, 1995; Hsu, 1990). Still another contradiction was Anita's limited social spontaneity and rigid, inflexible thinking patterns. As per previous literature, those with the binge-eating/purging type of anorexia nervosa generally differ from the restricting type in that they display greater social spontaneity, and greater flexibility in their thinking patterns (American Psychiatric Association, 1994; Hsu, 1990). Finally, there were many unexpected similarities between early-onset and adult-onset anorexia nervosa. Such similarities encompassed significantly more precipitating life events of the child and adult, and a greater severity of symptoms, demonstrated by multiple number of obsessive-compulsive thoughts and rituals. From the above, it becomes apparent that further research is critical to clarify and address the discrepancies, misconceptions, and gaps of knowledge about anorexia nervosa.
This study presented much information about early- and later-onset anorexia nervosa. It presented three case studies intended to address the original research question inquiring about similarities and differences of the two onsets. The findings of the study indicated several similarities of the two groups that included parallelism of demographic characteristics, particularly gender and places of birth being within industrialized countries. Other implied similarities comprised of comparable features of associated mental disorders such as major depressive disorder, obsessive-compulsive disorder, and anxiety disorder. Similarities of personality characteristics were also suggested to occur between the two onsets. In addition, data implied that the two groups experience similar predisposing factors such as family characteristics. Findings also suggested that the two groups experience comparable precipitating events including heightened anxiety about entering adolescent and adulthood, and separations or losses of significant people. Finally, it was indicated that individuals with early- and later-onsets of anorexia nervosa both experience similar perpetuating factors with fear of recovery being the most pronounced.

Aside from similarities, findings of this study implied that there are some differences among individuals with early- and later-onset anorexia nervosa. In particular,
it was found that children with anorexia nervosa are more likely to exhibit physical
overactive behavior than those with a later onset. It was also suggested that children with
the disorder are more likely to experience severe medical complications as a result of
emaciation. In addition, findings implied that children with anorexia nervosa have a
greater tendency to experience lower self-esteem and elevated feelings of rejection if
exposed to multiple, external precipitating factors. Finally, reports indicated that there is
a greater possibility that children will experience a better prognosis than individuals with
a later-onset, especially when treated immediately, intensively, and comprehensively.

The inferences of this study are made with caution. For, there are many
limitations of the study—one being its inability to generalize to the larger population of
individuals with anorexia nervosa. Despite such limitations, however, this study affords
many implications for the field of social work. Such implications involve assuring equal
health insurance rights for individuals with anorexia nervosa, developing and
implementing prevention measures, and enhancing the coping and problem-solving
capacities of individuals and families with anorexia nervosa. There also implications for
future research that necessitate more rigorous designs to examine not only early-onset
anorexia nervosa, but other related aspects of the disorder such as the adult onsets.
etiology, the binge-eating/purging type, treatment, and prognosis.
Russell's Set of Diagnostic Criteria for Anorexia Nervosa

1. There is a failure to gain the weight expected to occur at a time of growth (10-14 years), or there may occur an actual loss of weight. Such loss of weight and nutritional failure is the result of drastic food avoidance which is often accompanied by excessive exercise.

2. The basic psychopathology of anorexia nervosa is similar to that in older patients, with a dread of fatness expressed in one way or another.

3. There is a retardation of normal pubertal development. In girls, growth in stature is reduced, breast development is incomplete, and menarche is delayed. In boys, in addition to the delay in growth, the penis and scrotum remain infantile, and there is only a scanty growth of pubic and facial hair.

Table 2

The Great Ormond Street Diagnostic Checklist

<table>
<thead>
<tr>
<th>Diagnostic Criteria for Early-Onset Anorexia Nervosa:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determined food avoidance.</td>
</tr>
<tr>
<td>2. Weight loss or failure to gain weight during the period of pre-adolescent growth (10-14 years) in the absence of any physical or other mental illness.</td>
</tr>
<tr>
<td>3. Any two or more of the following:</td>
</tr>
<tr>
<td>a. preoccupation with body weight</td>
</tr>
<tr>
<td>b. preoccupation with energy intake</td>
</tr>
<tr>
<td>c. distorted body image</td>
</tr>
<tr>
<td>d. fear of fatness</td>
</tr>
<tr>
<td>e. self-induced vomiting</td>
</tr>
<tr>
<td>f. extensive exercising</td>
</tr>
<tr>
<td>g. purging (laxative abuse)</td>
</tr>
</tbody>
</table>

APPENDIXES B

INSTITUTIONAL REVIEW BOARD PACKET

Appendix B-1

Jennifer Duddy
School of Social Work
Re: Human Subjects Protocol
12/1/97

"Anorexia Nervosa: A Comparison of Early- and Late-Onset"
A Description of the Study

1. **Subjects**: Three subjects will be selected to participate in the study. They will be selected from the caseload of an eating disorders clinic in California. They will be selected based on availability and the following criteria. First of all, the three subjects selected will have a history of anorexia nervosa. They will also range in ages. It is expected that one will be a child (between the ages of 7-12). Another will be an adolescent (between the ages of 13-18). The last will be an adult (age 19 or above). Since the study aims to provide insight about early-onset anorexia nervosa, it is necessary to select a child and an adolescent. There will be no preference for gender.

2. **Purpose, Methods, Procedures**: The purpose of this thesis is add to the limited research surrounding early-onset anorexia nervosa and explore its similarities and differences in comparison to late-onset anorexia nervosa. Because early-onset anorexia nervosa is rarely diagnosed, a case study was assumed to be the most practical research design. The case study will consist of personal interviews with the above three subjects. It will also consist of interviews with other people involved in the treatment of the subjects. These people will include family members, therapists, and physicians. (See the attached interview guides.) To augment the personal interviews, the subjects’ existing case records will, likewise, be reviewed.

3. **Risks**: There is a possibility that the subjects may feel upset or embarrassed in sharing personal information and experiences during the interview. To decrease any negative consequences of such discomfort, the principal investigator will inform the subjects that she will be available for them to discuss and process any uncomfortable feelings. Other research methods that would lessen any unpleasant emotions, such as
self-administered questionnaires, were considered. However, it was assumed that personal interviews would be most appropriate to obtain the intimate information necessary to paint detailed portraits of people with anorexia nervosa. To minimize any other potential risks, the subjects' will be informed that all information disclosed will remain confidential. In addition, the subjects will be aware that their identities will remain anonymous in writing the report.

4. **Benefits:** Anticipated benefits of the research to the individual subjects include the possibility that the subjects will gain greater insight about themselves and their lives. It is also likely that the subjects will experience positive feelings from knowing that they contributed to improving the prognosis of other people with anorexia nervosa. It is assumed that this research will ameliorate the detection and treatment of anorexia nervosa, especially among children. Improving the detection and treatment of anorexia nervosa will most likely prevent those with the disorder from developing common devastating side effects, such as severe physical emaciation and death.

5. **Risk-Benefit Ratio:** When assessing the above risks and benefits of the research, the benefits outweigh the risks. First of all, many measures will be followed to minimize risks. They include the principal investigator's availability to process uncomfortable feelings, the subjects' confidentiality, and the subjects' anonymity. Secondly, the benefits not only help the subjects, but also the anorectic population and society at large.

6. **Cost to Subjects:** The only anticipated cost to subjects is 1½ hours of their time. As stated in the consent form, this hour and a half will be scheduled at the convenience of the subjects. Likewise, all other interviews conducted with people involved in the subjects' treatment will be scheduled at the convenience of the interviewees.

7. **Informed Consent:** The principal investigator will obtain informed consent from all subjects. In obtaining consent, the principal investigator will debrief the subjects about the research and acquire their signatures on the forms that entail all the necessary, basic elements of informed consent (see attached informed consent form). All consent forms will be secured in the principal investigator's personal files.

8. **Informed Consent:** Because this research entails the participation of minors under the age of 18, a Child/Adolescent Assent Form and a Parent/Guardian Permission Form have also been designed. The Child/Adolescent Assent form has been tailored to the language of children. In obtaining assent from minors, similar procedures will be followed as above. However, the principal investigator will debrief not only the minors, but also the parent(s)/guardian(s). Signatures will be acquired from both parties on the corresponding forms and secured in the principal investigator's personal files (see attached assent and permission forms).

Jennifer C. Duddy/ Principal Investigator

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Appendix B-2

Informed Consent

My name is Jennifer Duddy and I am a graduate student of the UNLV School of Social Work. I am conducting research, as part of my thesis, to explore similarities and differences of early- and late-onset anorexia nervosa. The research is assumed to provide some insight to improve the detection and treatment of anorexia nervosa.

I am inviting you to participate in this research by engaging in a personal interview with me. The interview will last approximately one and a half hours and will be scheduled at your convenience. You will be requested to share information regarding your onset of anorexia nervosa, including its symptoms, intensity, duration, and treatment. You will also be asked to share information about your personal experiences and life history relevant to your onset of anorexia nervosa.

In addition to the personal interview with you, I will be interviewing other people that have been involved in your treatment such as your family members, therapists, and physicians. I will also review any of your existing case records that would be relevant to this research.

All information shared by you and other relevant people interviewed will be kept confidential. Likewise, information gathered from your case records will not be discussed with anyone. Furthermore, your identity will remain anonymous in writing the thesis.

There is a possibility that participating in the interview may upset or embarrass you when sharing past personal experiences. I want to reassure you that I will be available to discuss any such discomfort with you. One benefit of participating in this research is the likelihood of gaining greater insight about yourself and your life. Another benefit is knowing that your participation will contribute to improving the detection and treatment of anorexia nervosa.

If you have any other questions regarding this research, please contact me at (702) 870-2315. You may also contact UNLV’s Office of Sponsored Programs for information regarding the rights of research subjects. The phone number is (702) 895-1357.

By signing this form, you are indicating that you understand the above information and agree to participate in this research project. In particular, you are giving permission for me to gather information from you, other people involved in your treatment, and your relevant case records. Your participation in this research is completely voluntary. You may withdraw from participation at any time.

Participant’s Signature __________________________ Date ______________
Principal Investigator __________________________ Date ______________
Faculty Advisor __________________________ Date ______________
Child/Adolescent Assent Form

My name is Jennifer Duddy and I am a graduate student of the UNLV School of Social Work. I am doing research, as part of my thesis, to look at how anorexia nervosa is similar and different among children, teenagers, and adults. I hope that my research will give insight to help people with anorexia nervosa get better quicker.

I am inviting you to help me with my research by taking part in an interview with me. The interview will last about one and a half hours and will take place at a time that is best for you. I will ask you to tell me about how anorexia nervosa has affected you. I will also ask you to tell me about your family, school, friends, and events that have happened in your past.

In addition, I will talk with other people who have been helping you get better. These people include your family members, counselors, and doctors. I will also read any of your case records that would be important to my research.

Everything that you or other people tell me about you will be kept a secret. Information taken from your case records will not be told to anyone either. When writing my thesis, I will also change your name so that no one will ever know who you are.

When talking to me, you might feel upset or embarrassed, especially when you tell me about your past. I want you to know that you can talk to me about any uncomfortable feelings you may experience. One good thing about taking part in my research, is that you may learn a little bit more about yourself and your life. You may also feel happy knowing that your assistance may help others with anorexia nervosa in the future.

Please remember that you do not have to help me with my research if you do not want to do so. If you choose to help me, you can always change your mind and back out at any time. Before you choose whether or not you want to help me, please talk about it with your parent(s) first. I will need permission from your parents as well.

If you have any more questions about my research, please call me at (702)870-2315. You may also call UNLV’s Office of Sponsored Programs for information about your rights as a research subject. The phone number is (702)895-1357.

By signing below, you are telling me that you understand everything on this page. You are also telling me that you will help me with my research by: 1) talking to me, 2) allowing me to talk to your family members, counselors, and doctors, and 3) allowing me to read your case records.

Child/Adolescent’s Signature ___________________________ Date ______________

Principal Investigator ________________________________ Date ______________

Faculty Advisor ____________________________________ Date ______________
Parent/Guardian Permission Form

My name is Jennifer Duddy and I am a graduate student of the UNLV School of Social Work. I am conducting research, as part of my thesis, to explore similarities and differences of early- and late-onset anorexia nervosa. The research is assumed to provide some insight to improve the detection and treatment of anorexia nervosa.

I am inviting your child/adolescent to participate in this research by engaging in a personal interview with me. The interview will last approximately one and a half hours and will be scheduled at your child’s convenience. Your child will be requested to share information regarding his/her onset of anorexia nervosa, including its symptoms, intensity, duration, and treatment. Your child will also be asked to share information about his/her personal experiences and life history.

In addition, I will interview other people who have been involved in your child’s treatment. Such people include yourself, other family members, therapists, and physicians. I will also review any of your child’s existing case records that would be important to this research.

All information shared by your child and other people will be kept confidential. Information gathered from your child’s case records will not be discussed with anyone either. Furthermore, in writing the thesis, your child’s identity will remain anonymous.

There is a possibility that your child may feel upset or embarrassed when sharing personal experiences. I want to reassure you that I will be available for your child to discuss any such discomfort with me. One benefit of your child participating in this research is the likelihood that he/she will gain insight about oneself and his/her life. Another benefit is the positive feeling your child may feel from knowing that he/she helped contribute to improving the detection and treatment of anorexia nervosa.

Your child’s participation in this research is completely voluntary and he/she may withdraw from participation at any time. If your child chooses to participate, your consent is required. Please discuss with your child his/her desire to engage in this research before arriving at any decision.

If you have any other questions regarding this research, please contact me at (702) 870-2315. You may also contact UNLV’s Office of Sponsored Programs for information regarding the rights of research subjects. The phone number is (702) 895-1357.

By signing this form, you are indicating that you understand the above information and consent to your child’s participation in this research. In sum, you are giving permission for me to interview your child, interview other people involved in your child’s treatment, and review your child’s case records. Child’s Name _____________

Parent/Guardian’s Signature __________________________ Date ______________

Principal Investigator _________________________________ Date ______________

Faculty Advisor ______________________________________ Date ______________

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Interviewer: _____________________ ID#: __________________
Date: _________________________

Personal Interview with Anorectic Subject

Demographics of Respondent

Age: ______
Date of Birth: ________
Gender (circle): M  F
Race: ________________
Current Height: ______
Current Weight: ______

Background Regarding Onset of Anorexia Nervosa
(All wording will be changed to tailor the appropriate age level of each subject.)
"Thanks for agreeing to participate in this research. This interview should last for about 1 ½ hours. To begin, I’d like to ask some questions about the onset of your anorexia nervosa.”

1. How old were you when you first developed symptoms of anorexia nervosa?
2. How tall were you at that time?
3. How much did you weigh before you developed anorexia nervosa?
4. a. What significant life event occurred within the year before you developed anorexia nervosa?
      ________________________________________________________________
      ________________________________________________________________
      ________________________________________________________________
      ________________________________________________________________
          b. How did this life event make you feel?
      ________________________________________________________________
      ________________________________________________________________

Clinical Features
"Now I’d like to ask several questions about the symptoms you developed. I’m going to ask some questions about the feelings, attitudes, and behavior you experienced when you first developed anorexia nervosa. Try your best to remember how you felt and what you did back then.”

5. How much weight did you lose? Or, how much weight did you fail to gain?
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
6. How did you feel about gaining weight or becoming fat?

7. a. (Show picture below of various body shapes.) Using these pictures, which picture did you see yourself as?

    b. Which picture did you want to look like?

8. What parts of your body, if any, did you feel were too fat?

9. a. How did you measure your body shape and weight?

    b. How often did you measure your body?

10. How did your body shape and weight affect your self-esteem?

11. Did you acknowledge the seriousness of losing a significant amount of weight? If so, how?

IF FEMALE, ASK QUESTIONS #12 and #13; IF MALE, GO TO #14.

12. At what age did you receive your first period?

13. How many menstrual cycles did you skip during the course of your anorexia nervosa?

14. How did you try to lose weight?

    a. Dieting?

    b. Fasting?

    c. Excessive exercising?

    d. Eating binges?

    e. Self-induced vomiting?

    f. Use of laxatives?

    g. Use of diuretics?
h. Use of enemas?

i. Other?

15. How often did you use the above methods to lose weight?

16. Describe any eating patterns or rituals you followed (i.e., cutting food into small pieces, eating by yourself, taking longer than others to eat).

The Argyle

Pictured below are various body types of males and females. Look at the pictures of your sex.

**HOW DO YOU SEE YOURSELF?**

Distributed by:

Physical Signs and Symptoms

The next questions I will ask will relate to the physical side effects you experienced as a result of your onset of anorexia nervosa.

17. What were some of the observable physical signs of your eating disorder (i.e., dry skin, yellow discoloration, lanugo, hair loss, dental enamel erosion, peripheral edema, etc.)?

18. What were some of the physical complications you experienced as a result of your eating disorder (i.e., constipation, abdominal pain, cold intolerance, lethargy, hypotension, bradycardia, bone loss, growth impairment, anemia, dehydration, emaciation, delayed sexual maturation, etc.)?

Associated Mental Disorders

Now, I'm going to ask you some questions that relate to other emotional or psychological symptoms you may have experienced during the onset of anorexia nervosa.

19. At the onset of anorexia nervosa, did you experience any depressive symptoms (i.e., suicidal ideation, social withdrawal, depressed mood, sleep disturbance, irritability, decreased interest in sex, etc.)? If yes, what were they?

20. At the onset of anorexia nervosa, did you experience any obsessive-compulsive features (i.e., preoccupation with thoughts of food, hoarding food, collecting recipes, etc.)? If yes, please describe.
21. At the onset of anorexia nervosa, did you experience any impulse-control problems (i.e., alcohol/drug use, sexual promiscuity, etc.)? If yes, please describe.

22. Did you experience any other features at the onset of anorexia nervosa?

**Personality Characteristics**

"The following questions are aimed to become familiar with who you were and how you felt about yourself. Answer them as you would have during the onset of anorexia nervosa. Later in the interview I will ask you about your current perceptions and feelings."

23. On a scale from 1-10 (1 = low; 10 = high), how would you describe your self-esteem back then.

24. On a scale from 1-10 (1=low; 10= high), how effective as a person did you see yourself?

25. How did you feel about entering adolescence or adulthood?

26. If you could had turned back time, would you have returned to childhood or remained where you were?

27. a. How did you get along with others?

   b. Did you trust others easily?

   c. To whom did you talk about personal thoughts and feelings?

28. How did you identify emotions you were feeling?
29. How did you express your emotions?

30. a. What were your goals for yourself back then?

  b. How far did you push yourself to achieve any goals you had set for yourself?

  c. How hard did you try to please others to avoid people's disappointment?

**Personal and Family History**

“These next questions will inquire about your personal and family history, as well as your social environment.”

31. Are you aware of any birth complications that occurred while you were born? If yes, what are they?

32. As an infant and child, did you experience any delays in development (i.e., talking, walking, toilet training)? If yes, please describe.

33. a. Describe your family of origin.

  b. Describe your relationships with each family member.

  c. Describe how your family deals with conflict, shame, or embarrassment.

34. Does anyone in your family have a history of eating disorders, depression, substance abuse, or any other mental health issue? If yes, please describe.
35. Have you ever been abused emotionally, physically, or sexually? If yes, please describe the details if you feel comfortable talking about the experiences (i.e., when, by whom, legal action taken)?

36. a. Prior to your onset of anorexia nervosa, did you have any significant medical problems (i.e., illnesses and surgery)? If yes, what were they?

   b. What medications were you taking then?

   c. What medications are you taking now?

IF CHILD OR ADOLESCENT, ASK #32 THEN GO TO #35; IF ADULT, GO TO #33.

32. a. What grade are you in?

   b. What type of grades have you achieved?

   c. Have you ever had learning problems?

   d. How many times have you been suspended or expelled, and why?

33. a. What level of education have you completed?

   b. Have you ever experienced learning problems?

34. Describe your employment history.

35. Have you ever been arrested or in trouble with the law? If yes, please describe.

36. How often did you, or do you use drugs or alcohol?

37. How many close friends do you have?

38. What social, academic, professional, or religious organizations do you belong to?
39. a. Describe your psychiatric treatment history (i.e., hospitalizations, individual outpatient counseling, family counseling, group therapy).

b. What led you to seek treatment each time?

c. What were the outcomes?

Current Progress
"These last few questions will ask about your current state, including your attitudes, wellness, and feelings."

40. Since your onset of anorexia nervosa, how much progress do you feel you have made towards becoming a healthy individual?

41. On a scale from 1-10 (1 = low; 10 = high), how would you rate your self-esteem now?

42. On a scale from 1-10 (1=low; 10=high), how effective do you feel as an individual?

43. What are your strengths as a person?

44. What do you do for fun?

45. What are your short-term and long-term goals?

"This ends our interview. Again, thanks for your cooperation. Do you have any questions or additional comments for me?"
Family and/or Therapist Interview

Background Information of Respondent
(All wording will be changed to tailor the appropriate age level of each respondent.)
"Thank you for agreeing to meet with me. As you know, this interview should last about one hour. I will ask questions regarding (subject’s name). First, however, I will ask questions about your background."

1. What is your relationship to the subject?

2. How long have you known the subject?

IF PROFESSIONAL REFERRAL, ASK #3 and #4; IF NOT, GO TO #5.

3. How was the subject referred to you?

4. What services did you provide for the subject?

Respondent’s Perceptions of Subject’s Eating Disorder
"These next few questions will ask about your perceptions of the subject’s eating disorder."

IF FAMILY OR FRIEND, ASK #5; IF PROFESSIONAL, GO TO #6.

5. When did you first become concerned with the subject’s eating habits?

6. What significant life event(s) may have precipitated the subject’s onset of anorexia nervosa?

7. What were the observable physical signs and symptoms that caught your attention regarding the subject’s onset of anorexia nervosa?
8. What were the emotional and psychological signs and symptoms of the subject's onset of anorexia nervosa?

9. What peculiar, ritualistic behaviors, if any, did the subject exhibit during the course of anorexia nervosa (i.e., cutting food into small pieces, eating by self, etc.)?

10. From what you recall, how much weight did the subject lose, or fail to gain?

11. a. How did the subject measure his/her body?

   b. How often did the subject measure his/her body?

12. From what you are aware of, what measures did the subject take to lose, or maintain, this weight?

13. How often did the subject use those measures?

14. When did the subject receive her first period?

15. How many menstrual cycles did the subject skip during her course of anorexia nervosa?

16. What physical and medical complications or complaints did the subject experience during the course of anorexia nervosa?

17. What secondary psychiatric diagnoses were made during the subject's course of treatment?

18. How would you describe the subject's personality at the onset of illness?
**Subject’s Personal and Family History**

"The following questions will inquire about the subject's personal and family history, as well as the subject's social environment."

19. Are you aware of any birth complications during the pregnancy and birth of the subject? If yes, what are they?

20. Describe the subject's development as an infant and child. Were there any delays in talking, walking, toilet training, etc.?

21. a. Describe the subject’s family of origin.

   b. Describe the relationships between each family member.

   c. Describe how the subject’s family deals with conflict, shame, or embarrassment.

22. Does anyone in the family have a history of eating disorders, depression, substance abuse, or any other mental health issue? If yes, please describe.

23. To your knowledge, has the subject ever been abused emotionally, physically, or sexually? If yes, please describe the circumstances (when, by whom, legal action taken).

24. a. Prior to the onset of anorexia nervosa, did the subject have any significant medical problems (i.e., illnesses, surgery, etc.)?

   b. What medications has the subject taken?

   c. What medications are prescribed for the subject now?
IF SUBJECT IS UNDER AGE 18, ASK #25 THEN GO TO #27; IF NOT, GO TO #26.

25. a. What grade is the subject in?

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<td>b.</td>
<td>What type of grades has the subject earned?</td>
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<td>c.</td>
<td>Does the subject have a history of learning problems?</td>
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<tr>
<td>d.</td>
<td>Does the subject have history of behavior problems in school? Any suspensions or expulsions?</td>
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26. What level of education has the subject completed?

27. Describe the subject’s employment history.

28. To your knowledge, has the subject ever been arrested or in trouble with the law? If yes, please describe.

29. How often has the subject used drugs or alcohol (past or current)?

30. Describe the social support system of the subject (i.e., friends, relatives, social, professional, or religious organizations).

31. a. Describe the psychiatric treatment history of the subject (i.e., hospitalizations, individual counseling, family counseling, and group therapy).

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<td>b.</td>
<td>What brought the subject to seek counseling each time?</td>
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<td>c.</td>
<td>What were the outcomes?</td>
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32. As a professional, describe the approaches in treatment you utilized with the subject and the length of time for treatment.

33. Since the subject's onset of anorexia nervosa, what progress has the subject made towards becoming a healthy individual?

34. a. What are the subject's limitations?

34. b. What are the subject's strengths?

"This ends our interview. Again, thanks for your cooperation. Do you have any questions or additional comments for me?"
December 1, 1997

Graduate College
University of Nevada Las Vegas
Las Vegas, NV

Via facsimile: 702-471-0120

To Whom It May Concern:

The Pathfinders Foundation supports research about eating disorders which are also treated on an inpatient basis in our psychodynamic treatment program. We agree to help locate subjects for Jennifer Duddy to interview for her thesis, "Anorexia Nervosa, A Comparison of Early and Late Onset" for the degree of Masters of Social Work.

Sincerely,

[Signature]
C. Robin Rudnikoff
Executive Director

cc: Paul Rosenberg, M.D.
Medical Director
APPENDIX C

HUMAN SUBJECTS PROTOCOL APPROVAL

DATE: December 4, 1997

TO: Jennifer C. Duddy
M/S 5032 (SWK)

FROM: Dr. Fred Preston
Chairman, Social/Behavioral Committee
of the Institutional Review Board

RE: Status of Human Subject Protocol entitled:
"Anorexia Nervosa: A Comparison of Early- and Late-Onset"
OSP #386s1297-126s

This memorandum is official notification that the protocol for
the project referenced above has been approved by the Social/
Behavioral Sciences Committee of the Institutional Review Board.
This approval is approved for a period of one year from the date
of this notification, and work on the project may proceed.

Should the use of human subjects described in this protocol
continue beyond a year from the date of this notification, it
will be necessary to request an extension.

If you have any questions or require any assistance, please
contact Marsha Green, IRB Secretary, at 895-1357.

CC: L. Santangelo (SWK-5032)
OSP File

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APPENDIX D

HUMAN AND RESEARCH COMMITTEE APPROVAL

HUMAN USE AND RESEARCH COMMITTEE

ACTION NOTICE

PRINCIPAL INVESTIGATOR  Jennifer Duddy

TITLE  Anorexia Nervosa: A Comparison of Early- and Late-Onset

DATE REVIEWED BY COMMITTEE  March 11, 1998

FUNDING SOURCE  N/A

FUNDING REQUEST  N/A

The Human Use and Research Committee, the Northridge Hospital Medical Center Institutional Review Board (IRB), has reviewed the proposed use of human subjects in the project identified above and has determined that:

// The proposed study and consent form are approved.
- the rights and welfare of the subjects are adequately protected;
- the risks are outweighed by the potential benefits;
- the informed consent will be obtained with methods that are adequate and appropriate.

// The proposed study is approved with modification or stipulation. (See comments below.)

// The proposed study does not need approval. (See comments below.)

// The requested funding is approved in the amount of $________.

// The requested funding is not approved. (See comments below.)

// The previously approved study is approved for an additional one year.

// The study meets the Committee's requirements for expedited review and is approved.

// The study meets the Committee's requirements for expedited review and is approved with modification or stipulation. (See comments below.)

COMMENTS  Participants are not connected with Northridge Hospital and there appears to be no harm to subjects so Committee will exercise no jurisdiction over the study.

Stephen Borowsky, M.D.
Chairman, Human Use and Research Committee

3/11/98  Date

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Pictured below are various body types of males and females. Look at the pictures of your sex.

**HOW DO YOU SEE YOURSELF?**

1  2  3  4  5  6  7  8  9

Distributed by:
REFERENCES


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VITA

Graduate College
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Jennifer Claire Duddy

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Degrees:
Bachelor of Arts, Psychology, 1994
University of California, Santa Barbara (UCSB)

Special Honors and Awards:
Summer Scholarship, UNLV, 1997
Graduate Assistantship, UNLV, 1997
Barrick Fellowship, UNLV, 1996
Katherine Esau Award, Phi Beta Kappa, 1994
College Honors, UCSB, 1994
Highest Honors, UCSB, 1994
Chairperson’s Award in Psychology, UCSB, 1994

Thesis Title: Anorexia Nervosa: An Exploration of Early- and Later-Onset

Thesis Examination Committee:
Chairperson, Dr. Linda K. Santangelo, Ph.D.
Committee Member, Dr. William Epstein, D.S.W.
Committee Member, Dr. Gerald Rubin, Ph.D.
Graduate Faculty Representative, Dr. Shirley Emerson, Ph.D.