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# Obesity, stigma, and occupational therapy

Karen Leemhuis

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**OBESITY, STIGMA, AND  
OCCUPATIONAL THERAPY**

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**A Master's Thesis presented to the Faculty of the  
Graduate Program in Occupational Therapy  
Ithaca College**

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**In partial fulfillment of the requirements for the degree  
Master of Science**

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by

**Karen Leemhuis**

**September 2006**

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Ithaca College  
School of Health Sciences and Human Performance  
Ithaca, New York

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CERTIFICATE OF APPROVAL

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This is to certify that the Thesis of  
Karen Leemhuis

Submitted in partial fulfillment of the requirements for the degree of  
Master of Science in the Department of Occupational Therapy, School of Health Sciences  
and Human Performance at Ithaca College has been approved.

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Date: October 15, 2006

### Abstract

Rising rates of obesity demand that the field of occupational therapy consider the impact this will have on practice. The purpose of this study is to investigate the attitudes of occupational therapy practitioners and identify the facilitators and barriers to practice for individuals with obesity. Participants completed a mail survey containing demographic information, questions regarding clinical practice, and the Attitudes Toward Obese Persons Scale. Chi-square tests of association for all demographic and facility factors did not show a significant difference in attitudes at the  $p < .05$  level. Facilitators for treating individuals with obesity identified by participants include client factors, resources, team attitude, increased attention to obesity, and teamwork. Client factors, resources, and team attitude were also identified as barriers in the treatment of obesity. Additional barriers also included lack of education, safety, accessibility, reimbursement, and social and environmental factors.

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## Chapter 1: Introduction

Obesity is a chronic medical condition that is gaining attention because of the significant health risks involved. It is important that individuals with obesity receive quality health care services. This health care includes sensitive, educated staff and facilities that are prepared to meet the needs of these individuals. A deeper understanding of the condition and a willingness by staff to combat any stereotypes is necessary so that barriers to treatment can be overcome. As occupational therapists increase contact with individuals with obesity, it is important that they apply the basic values of the profession to this population. The field of occupational therapy must also explore its role in the treatment of obesity, eliminate barriers to care, and develop a research base for interventions.

### *Background*

#### *Obesity*

Individuals with obesity often experience associated health problems. Among these are cardiovascular disease, cancer, and diabetes mellitus. Often, these patients will have shortness of breath, increased vulnerability to infectious disease, atherosclerosis, high blood pressure, cardiomyopathy, fatigue, menstrual disorders/infertility, irritability, loneliness, depression, binge eating, and tension. Thromboembolic disorders, digestive tract diseases, obstructive sleep apnea, and pulmonary compromise are also common (Goodman, 2003). Interventions for obesity include diet and exercise, pharmacotherapy, surgical options, and behavior modification (Racette, Deusinger, & Deusinger, 2003).

#### *Stigma*

The stigma that individuals with obesity face increases the disabling impact that this condition has on these individuals. It is important to include the consequences of bias and discrimination in the list of things to be considered when treating an individual with obesity.

According to Puhl and Brownell (2001), these clients face bias, prejudice, and discrimination on a daily basis in social, educational, employment, and health care settings. It is a commonly held belief that individuals with obesity are responsible for their condition, making them "the last acceptable targets of discrimination (Puhl & Brownell, 2001)."

Puhl and Brownell (2003) suggest that people blame controllable factors for obesity. Typical characteristics include lack of willpower, laziness, poor self-discipline, and self-indulgence. These traits conflict with the valued work ethic in America. Although obesity is a physical condition, it is equated to socially deviant conditions like child abuse and drug addiction (Puhl & Brownell, 2003).

This bias is so pervasive in our culture that health care professionals often hold this bias as well. Schwartz, Chambliss, Brownell, Blair, and Billington (2003) found that the stigma toward obesity is held even by health care professionals specializing in the management of obesity. As a result, patients with obesity often encounter barriers to receiving quality medical care. In addition to this, patients may seek care with a combination of shame, embarrassment, hope, and fear (Blackwood, 2004). Often, it leads to a hesitation to seek the medical care they require (Drury & Louis, 2002). Because of the emotional factors that individuals with obesity face daily, it is especially important that all members of the health care team display a professional attitude toward these individuals (Blackwood, 2004).

Several studies have explored the attitudes of health care professionals toward obesity. Teachman and Brownell (2001) researched implicit and explicit attitudes of health care professionals attending a continuing education session on obesity using the Implicit Associations Test and a seven point semantic differential scale. The Implicit

Association Test measures automatic associations and does not have the limitations of self-report measures. The results of this test revealed a strong anti-fat bias among professionals. This study also included a self-report portion. Although the professionals did not report classifying overweight individuals as bad, they endorsed the belief that thin people are motivated. Schwartz et al. (2003) administered the Implicit Associations Test and a self-report questionnaire to clinicians attending an international obesity conference. Health professionals showed a significant pro-thin, anti-fat bias, viewing obese individuals as lazy, stupid, and worthless. Even professionals who focus on research or management of obesity are impacted by the stigma.

### *Occupational Therapy*

Occupational therapy is an allied health profession providing “skilled treatment that helps individuals achieve independence in all facets of their lives (American Occupational Therapy Association, 2005).” Individuals with obesity experience various limitations in function that could be addressed by occupational therapists. Physical, emotional, social, and role functioning are areas that often need to be addressed with these individuals and which occupational therapists possess the skills to treat. In addition to the physical effects of obesity, the pervasive stigma toward this condition is also a disabling factor.

Fatigue, loss of range of motion, shortness of breath, chronic pain, and depression associated with obesity can have a significant impact on activities of daily living (ADLs), employment, and leisure pursuits (Forhan, 2004). Back pain, arthritis, biomechanical dysfunction, skin breakdown, cardiopulmonary compromise, and neuropathy also present challenges to the occupational therapist working with individuals with obesity (Goodman, 2003). With the growing prevalence of obesity in our nation, this condition

will be seen in any setting in which occupational therapy is provided and will demand sensitive care from therapists.

### *Problem*

Due to the health and functional implications of obesity, the health care industry must address these needs. Many health care facilities do not have the resources to provide adequate care to these individuals. It is not clear what impact facility factors have on professional attitudes and the quality of treatment provided for individuals with obesity. These facility factors include work setting, diagnosis, patient population, caseload characteristics, hearing disparaging statements, equipment, comfort with transfers, staffing, and the overall quality of the environment to treat clients with obesity. Unfortunately, many of the health care professionals responsible for the care of individuals with obesity carry the stigma that is so pervasive in our society. Holding this stigma could have a significant impact on the care that these clients receive and their willingness to seek the medical attention required (Drury & Louis, 2002). Health care professionals are not immune to the powerful stigma of obesity. It is not clear what impact these attitudes have on the quality of care that is provided. In addition to this, there is no information on current occupational therapy treatment of obesity and the attitudes of occupational therapists toward individuals with obesity. The occupational therapy literature that does exist regarding obesity does not have a strong research base. In order to provide quality care that addresses the needs of these individuals, occupational therapists need to gain an understanding of the barriers to practice and explore how their attitude toward this condition impacts the treatment they provide.

### *Rationale*

Obesity is a growing health threat in the United States and other developed

countries. It has been included as one of the top ten health indicators in Healthy People 2010, a national project to improve health in the United States (Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services, 2000). It is estimated that over one half of adults in the United States are overweight or obese and that half of this group has associated medical conditions (Goodman, 2003). The incidence of obesity is estimated to be 30% (Blackwood, 2004). With 500,000 deaths annually, obesity is now the second leading cause of preventable death (Goodman, 2003). In 2000, health care treatment for overweight and obesity cost \$117 billion, which amounts to about 10% of the country's total health care spending (Blackwood, 2004).

The field of occupational therapy must consider the impact that the increased rate of obesity in American society has on our profession. In particular, it is important for occupational therapists to apply the profession's belief in therapeutic use of self. In the OT Practice Framework (American Occupational Therapy Association, 2002), the therapeutic use of self is the "therapist's planned use of personality, insights, perceptions, and judgments as part of the therapeutic process (p. 49)." With the assumption that the therapist's perceptions and judgments serve a therapeutic purpose, negative attitudes toward individuals with a certain condition would have a harmful effect on the result of therapy. It could also impact an occupational therapist's willingness to address necessary issues with a client and be a barrier to the therapist in gaining an awareness of the role that they could play in the treatment of obesity. A biased therapist may not provide the motivation for the client to attend therapy or follow therapeutic advice. It is important that occupational therapists recognize any stereotypes they possess so these attitudes can be addressed and therapy for individuals with obesity can improve.

### *Definition of terms*

1. *Body Mass Index (BMI)* - a description of "relative weight for height" (Hurst, Blanco, Douglass, & Wikas, 2004, p. 77). BMI is determined by dividing body weight (in kilograms) by the square of height (in meters) (Racette et al., 2003)
2. *Overweight*- typically defined by a BMI of 25-29.9 kg/m<sup>2</sup> (Racette et al., 2003).
3. *Obesity*- "Excessive accumulation of fat in the body (Goodman, 2003, p. 30)." Typically defined beginning at a BMI level of 30 kg/m<sup>2</sup>. Severely obese is defined as a BMI above 40 kg/m<sup>2</sup> (Racette et al., 2003).
4. *Attitude*- "feeling or mental reaction in regard to a matter (Williams, 1991)."
5. *Stigma*- "mark of disgrace or infamy (Williams, 1991)."
6. *Bias*- "prejudice (Williams, 1991)."
7. *Stereotype*- "fixed or conventional conception Williams, 1991)."
8. *Therapeutic use of self*- "therapist's planned use of personality, insights, perceptions, and judgments as part of the therapeutic process (American Occupational Therapy Association, 2002, p. 49)."

### *Purpose*

The purpose of this study is to examine the current status of occupational therapy in relation to the condition of obesity. It will explore barriers to practice affecting interventions with individuals with obesity and therapists' attitudes toward obesity. In addition, this study will answer the following research questions:

1. Do occupational therapists have negative attitudes toward obesity?
2. What demographic factors influence attitudes of occupational therapists toward obesity?

3. Do facility factors influence attitudes towards obesity?

4. What are barriers and facilitators to practice with individuals with obesity?

## Chapter 2: Literature Review

### *Obesity*

Bariatrics is the branch of medicine concerned with the management of obesity. Obesity is a growing health threat in the United States and other developed countries. It is estimated that over one half of adults in the United States is overweight or obese and that half of this group has associated medical conditions (Goodman, 2003). The prevalence of obesity is estimated to be 30% (Blackwood, 2004). With 500,000 deaths annually, obesity is now the second leading cause of preventable death (Goodman, 2003). In 2000, health care treatment for overweight and obesity cost \$117 billion, which amounts to about 10% of the country's total health care spending (Blackwood, 2004). Because of the growing health threat of obesity, it has been listed as one of the top ten leading health indicators in Healthy People 2010, a national project to improve health in the United States (Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services, 2000).

### *Background*

Obesity is defined as excessive accumulation of fat in the body. Medically, this is considered to be a weight that is 20% greater than ideal when considering factors such as gender, body structure, and height (Goodman, 2003). Height and weight charts have been replaced by measurement of body mass index (BMI). BMI is determined by dividing body weight (in kilograms) by the square of height (in meters). Normal BMI is considered to be 20-24.9 kg/m<sup>2</sup>, overweight is defined from 25-29.9 kg/m<sup>2</sup>, obese is defined beginning at 30 kg/m<sup>2</sup>, and severely obese is defined as above 40 kg/m<sup>2</sup>. The major disadvantage to BMI measurements is that there is no distinction between muscle mass and adipose mass. Because of this, it is not an accurate indicator for athletes and other muscular individuals (Racette et al., 2003).

Another commonly used measurement is waist circumference. According to the World



Health Organization (as cited by Racette et al., 2003), waist circumference values of greater than or equal to 80 cm for women or 94 cm for men are associated with increased risk of health concerns. At greater than or equal to 88 cm for women or 102 for men, there is a substantial risk increase. The benefits of waist circumference include a significant correlation with BMI ( $r=.84-.88$ ), availability of tools, and the relation to abdominal fat, which is associated with higher risk of complications (Racette et al., 2003).

The most accurate measures of body fat are hydrostatic weighing, dual-energy x-ray absorptiometry (DEXA), and isotope dilution. These measurement tools are not typically available outside of research institutions (Racette et al., 2003). Calipers offer a measurement of skinfold thickness that is simple and inexpensive. However, extreme obesity and hydration may impact the results and inter-rater differences are common (Racette et al., 2003). Bioelectrical impedance analysis, which offers portability, reasonable cost, and short administering time, uses a low frequency electrical current that is impeded as it flows through adipose tissue. Despite these advantages, hydration and extreme obesity may influence accuracy and individual variability is a threat (Racette et al., 2003).

### *Etiology*

The cause of obesity is unknown. There are several theories about the factors that contribute to obesity, and it is likely that obesity is a result of a complex interaction of genetic, behavioral, environmental, metabolic, and social factors.

Goodman (2003) describes the growing evidence that supports the theory that biochemical defects contribute to obesity. Three genes have been linked to obesity. These are the ob, neuropeptide Y (Npy), and Beacon gene. The ob gene is responsible

for the production of leptin, which switches off appetite. In some individuals with obesity, the body does not respond adequately to leptin which could result in a person having an increased appetite. Npy and Beacon produce a protein that stimulates the appetite. Overactivity of these genes may contribute to the development of obesity. However, changes in the gene pool alone cannot fully explain the increasing prevalence of obesity. It is also believed that prenatal exposure to certain chemicals that have hormonal effects contributes to obesity in children (Goodman, 2003).

Excessive calorie intake compared to expenditure contributes to weight gain. In American society, energy and fat dense foods combine with a sedentary lifestyle to contribute to the rise in obesity rates. Modern technology has provided our society with many labor saving devices. Many children lack opportunities to play outside because of lack of supervision after school or living in unsafe neighborhoods. A general trend is for aerobic physical activity to decrease between 12 and 21 years of age (Racette et al., 2003). With various fad diets, repeated cycles of weight loss and gain may lead to an inability to lose weight on a long-term basis (Goodman, 2003). In addition to this, age is a factor. It is estimated that the average person gains 9.1 kg between the ages of 25 and 55 years (Racette et al., 2003).

Goodman (2003) describes several other theories concerning the cause of obesity. The Metabolic Syndrome theory suggests that stress triggers increases and the eventual impairment of cortisol secretion leading to a lengthened stimulation of the sympathetic nervous system and hypothalamic arousal. This contributes to visceral accumulation of body fat. Another theory suggests that individuals with obesity have fewer  $\text{Na}^+/\text{K}^+/\text{ATPase}$  pumps and therefore expend less energy in homeostatic processes than other individuals. The adipose cell theory says that the number and size of fat cells is

greater in obese individuals. It has also been suggested that lipoprotein lipase (LPL) production is stimulated by weight reduction. LPL helps deposit fat to the adipocytes.

### *Associated health problems*

In addition to increased adiposity, individuals with obesity are at a higher risk for many associated health complications. Increased rates of mortality can be attributed to the increased risk of three of the leading causes of death: cardiovascular disease, cancer, and diabetes mellitus (Goodman, 2003). Cardiovascular disease is more common in individuals with obesity because of the heightened blood lipid levels (American Obesity Association, 2002). In addition to this, coronary heart disease and an increased risk of heart attack are threats. Individuals with obesity are at increased risk of various forms of cancer including breast, esophagus, gastric cardia, colorectal, endometrial, and renal cell cancers. Obesity is a major contributing factor to diabetes mellitus and 90% of individuals with diabetes are overweight or obese. Drug treatment of diabetes is complicated by the increased insulin resistance and glucose intolerance associated with obesity (American Obesity Association, 2002).

This population is also at increased risk of various musculoskeletal disorders. Rheumatoid arthritis and osteoarthritis of the hand, hip, back, and knee are more common in individuals with obesity. Gout, carpal tunnel, and low back pain are all associated complications. Musculoskeletal and joint related pain can contribute to increased disability levels (American Obesity Association, 2002).

In addition to this, the American Obesity Association (2002) describes increased risks of morbidity associated with the following factors that provide threats to the individual. Chronic venous insufficiency, deep vein thrombosis, end stage renal disease, gall bladder disease, pancreatitis, liver disease, infections following wounds, surgical

complications, urinary stress incontinence, and heat disorders add to the list of complications. Also, 75% of hypertension cases can be directly attributed to obesity (American Obesity Association, 2002). Cardiovascular problems combined with obesity lead to an increased risk of cerebrovascular disease. Often these patients will have shortness of breath, susceptibility to disease, atherosclerosis, cardiomyopathy, fatigue, and menstrual disorders/infertility. Thromboembolic disorders and digestive tract diseases are also common. Obstructive sleep apnea and pulmonary compromise is reflected in decreased gas exchange, vital capacity, and expiratory volume. Although the list of medical complications alone can be overwhelming, psychological implications of obesity including irritability, loneliness, depression, binge eating, and tension cannot be overlooked by health care professionals (Goodman, 2003).

The death rate increases in proportion to the degree of obesity and complications. Even moderate weight loss can result in a significant change in risk factors (Goodman, 2003). When considering prognosis, the pattern of fat distribution should be considered. Visceral fat in the abdominal cavity carries a greater risk than subcutaneous fat around the abdominal cavity. Also, obesity around the waist and flank is more hazardous than lower body obesity. Waist-to-hip ratios of over 1.0 in men or 0.8 in women contribute to an increased risk of diabetes mellitus, stroke, CHD, and early death. Waist circumference of over 35 inches in women and 40 inches in men also indicate a poorer prognosis (Goodman, 2003).

### *General intervention*

Multiple approaches are considered and necessary in bariatric treatment. Approaches include dietary, lifestyle changes, pharmacotherapy, surgical options, and behavior modification. Treatment decisions are individualized to the patient. It is

important to include long-term behavioral modifications into any treatment plan.

Decreases of 5%-10% of body weight are considered successful and significantly reduce risks associated with obesity. However, a reduction of 10% of body weight maintained for 1 year is predictive of better long term improvements (Racette et al., 2003).

#### *Dietary approaches.*

Dietary approaches consist of reducing the amount of energy intake. Very low calorie diets (under 800 calories a day) and low calorie diets (800-1500 calories per day) are the two options for dietary approaches to intervention. Although a very low calorie diet is now possible through safer techniques than were once available, low calorie diets are recommended more often. Low calorie diets are safer, have fewer side effects, and encourage better compliance than very low calorie diets (Racette et al., 2003). Dietary interventions must be individualized because different people respond differently to the same treatment. Exercise is an important addition to a dietary approach. Exercise increases energy expenditure, helps reduce adipose tissue, and increases dietary compliance. It is also important to incorporate daily physical activity into the patient's routine. Obese individuals who are physically active have a lower risk for health problems than other people with normal weight and sedentary lifestyles (Racette et al., 2003).

#### *Pharmacotherapy.*

When these approaches alone do not achieve the desired results, pharmacologic treatment is considered as an addition to the treatment program. Most medications for weight loss are not approved for long term management of obesity. Over the counter products that are commonly used to treat obesity include Ephedra, Chitosan, Garcinia, St. John's wort, herbal laxatives and diuretics, caffeine, appetite suppressants and pyruvate.

These products are not approved as safe and effective methods to control obesity (Mayo Foundation for Medical Education and Research, 2004). However, two medications are approved for long term treatment. Sibutramine (Meridia) inhibits the reuptake of serotonin and norepinephrine and therefore decreases appetite. Orlistat (Xenical) reduces intestinal digestion and absorption by selectively inhibiting pancreatic lipase. Unlike other drugs that have been removed from the market because of associated risks, these two options are considered safe (Racette et al., 2003).

### *Surgical Options.*

When the patient meets specific criteria, surgical options are considered. Severe obesity, or a BMI over 35 with a comorbidity of hypertension, severe diabetes, obstructive sleep apnea, cardiomyopathy, or musculoskeletal or neurological concerns warrants consideration of surgical options. In patients over the age of 18 who have been obese for 5 years or more, surgery is an approved method if the obesity does not have a correctable cause, there is no history of substance abuse or psychiatric disorder, nonsurgical weight loss has been unsuccessful, and the patient is able to adhere to dietary and behavioral changes (Blackwood, 2004). The most common bariatric surgery performed is the gastric bypass surgery. In this procedure, the upper portion of the stomach is stapled and attached to the jejunum, a portion of the small intestine, by tubing called a Roux-en-Y limb to form an anastomosis (Racette et al. 2003). Weight loss results in 6 months through the limited food intake and decreased absorption of nutrients that bypass the stomach and upper portion of the small intestine. Patients have lost approximately 100 pounds, which is about 60% to 70% of excess body weight in the first year and the weight loss has been maintained for 15 years. Another less common surgical technique is vertical banded gastroplasty, in which an "upper gastric pouch is formed by a vertical

staple line; with a cloth band applied to prevent dilation at the outlet into the main pouch (Dirckx, 2001).” Although these options are safer than those practiced in the past, common side effects include infections, incisional hernias, and anastomotic leaks. Other risks include steatorrhea or passage of fat in the feces, vitamin and mineral deficiencies, and osteoporosis (Racette et al., 2003). It is also important to address psychological issues concerning the surgery because the shame that often accompanies the need for these procedures can remain with the patients beyond the procedure (Blackwood, 2004).

### *Behavioral Modification.*

Behavioral modifications are an important consideration in the treatment of obesity. In this approach, triggers in the environment and barriers to treatment are identified. The client is assisted in the development of goals, learns self-monitoring techniques, and receives feedback in individual or group sessions (Racette et al., 2003). Wing and Tate (2002) describe behavior modification techniques for obesity. Improvements in behavior modification programming have increased the length of intervention to approximately six months, added a maintenance session that extends the total treatment to one or two years, and incorporated physical activity in combination with diet. In comparison to old programs that lasted about 10 weeks, greater weight losses were achieved and maintained. Group meetings with inter-disciplinary professional leaders have been found to increase effectiveness over individual programs (Wing & Tate, 2002). In addition to this, continued follow-up meetings are a critical component of maintaining the weight loss. Maintained contact after the six month sessions resulted in an average weight loss of 13.6 kg. as opposed to 4.5 kg. without this (Wing & Tate, 2002). Meetings typically involve a weigh-in, self-monitoring techniques for diet and exercise, a lesson, and assignments. Achievable goals are set.

*Team approach.*

As part of the treatment team, occupational therapists will work with surgeons, physicians, nurses, physical therapists, respiratory therapists, dieticians, social services, specialty equipment vendors, pharmacists, and psychologists. Referrals to other professionals for the treatment of secondary conditions are made as needed in each case. In addition to medical interventions, it is important to address the emotional aspects of this condition and the effect of stigma on the individual. For this reason, it is important to consider psychology or psychiatry referrals as part of the team approach (Hurst et al., 2004).

*Special Considerations*

It is important for facilities to consider the equipment needs of patients with obesity. Inadequate space or equipment can result in injuries to the patient and staff as well as make the patient more dependent for care. Common problems encountered include narrow door widths and limited space for mobility, equipment, and staff in rooms. There should be enough space for several pieces of equipment and adequate space to allow proper body mechanics of staff during care of the bariatric patient. It is recommended that the room be at least 13 feet, 3 inches wide by 15 feet long (Muir & Haney, 2004). Other equipment needs include extra capacity walkers, armchairs, extra capacity hospital beds, extra capacity standing and raising aids, and trapeze bars (Muir & Haney, 2004). Facilities should be equipped with large gowns, blood pressure cuffs, Hovermatts, over-the-toilet commodes, oversized wheelchairs, heavy duty commodes, heavy duty transfer tub benches, heavy duty hoysers and adequate equipment to weigh patients, and other equipment that can support obese patients. Widened doorways are another feature that should be incorporated into facilities in order to make them



accessible to patients (Hurst et al., 2004). It is estimated that the cost per facility of these modifications ranges from \$3,500 to \$500,000 annually and that care of patients with obesity costs 37% more than normal weight patients (Akridge, 2004). Specialized equipment and adaptations to the home environment may also be necessary for discharge (Taggart & Mincer, 2004).

Care for the bariatric patient requires special precautions concerning safety. Health care professionals are at increased risk of injury when assisting with mobility for patients with obesity. Increased costs to the facility result from worker's compensation, employee turnover, and low employee morale (Akridge, 2004). Transfers and position changes can cause injuries if not done properly. Multiple staff should assist with these procedures and proper equipment should be utilized. There are also safety concerns for the patient. Professionals should be responsive to a patient's fear of falling or being dropped (Hurst et al., 2004). Different body types must be moved in different ways and employees should be trained in proper technique (Akridge, 2004). Muscle atrophy and anasarca can be a complication in obesity in which sudden movements can be dangerous or fatal (Akridge, 2004).

### *Stigma*

In order to fully appreciate the disabling effect of obesity, the stigma toward this condition must be considered. These individuals face stigma, bias, and discrimination daily. Stigma is "a mark of disgrace or infamy (Williams, 1991)." Bias refers to a prejudice and implies an "unreasoning objection or hatred (Williams, 1991)." Discrimination is the "unfavorable treatment of a person or group because of prejudice (Williams, 1991)."

These attitudes are encountered in the areas of education, employment, and health

care. Puhl and Brownell (2003) suggest that it has become an accepted form of prejudice to express negative attitudes toward individuals with obesity. Characteristics often attributed to individuals with obesity include lack of competence, laziness, and lack of self-discipline. The strong, negative stereotype is often communicated to children through their parents. Often, obese individuals themselves have the bias. Although obesity is a physical condition, it has been rated as similar to stigmatized and deviant conditions like child abuse and drug addiction (Puhl & Brownell, 2003).

### *Theories of stigma*

Puhl & Brownell (2003) explain the bias through several different theories. Attribution theories suggest that people blame controllable factors for obesity despite the previously mentioned evidence for the various factors that contribute to obesity. Typical characteristics associated with obesity include lack of willpower, laziness, poor self-discipline, and self-indulgence. These traits conflict with the valued work ethic in American culture. Because controllable factors are considered the cause of obesity, individuals may justify the stigma and accept these stereotypes without feelings of guilt. It is hypothesized that most people categorize themselves into groups and compare the groups. Attempts to maintain social identity are made through prejudice. It is also believed that individuals with obesity threaten ideals of thinness and self-discipline. Thin individuals may perceive a risk of negative perceptions of others from associating with obese individuals. Social consensus theory suggests that common beliefs provide a way to affiliate with others, which may contribute to an increased confidence in the negative attitudes towards individuals with obesity (Puhl & Brownell, 2003). The impact of the opinion of others can have a strong influence on an individual's attitude toward obese individuals that can override past experiences. This theory explains the self-stigma as a

way to associate with the in-group.

### *Effects of stigma*

The stigma toward obesity can have a significant, negative impact on the lives of individuals with obesity. Obesity is associated with higher rates of depression, suicidal thoughts, and suicide attempts (Puhl & Brownell, 2003). In addition to this, Puhl and Brownell (2003) say the resulting isolation and social withdrawal can contribute to an increased tendency to over-eat and assume a sedentary lifestyle. A self-fulfilling prophecy can result, in which individuals with obesity assume the characteristics that are attributed to them. In the health care setting, a bias toward obesity may influence the judgments made by professionals and contribute to a hesitancy to seek medical care (Drury & Louis, 2002).

### *Stigma in the health care setting*

Studies have demonstrated significant bias toward obesity by health professionals. One-third of physicians listed obesity on a list of top 5 diagnostic categories to which they respond negatively. In this study, obesity was ranked the fourth most common category behind addiction, alcoholism, and mental illness. These physicians associated obesity with poor hygiene, noncompliance, hostility, and dishonesty. Several preferred not to treat individuals with obesity and did not expect treatment to be successful. In addition to this, physicians report that caring for individuals with obesity is not rewarding and that they expect non-compliance and lack of motivation from patients (Puhl & Brownell, 2001). While safety concerns and discouragement over lack of success can contribute to bias among healthcare professionals, hospitals are still responsible for providing quality care to patients with obesity (Akridge, 2004). Negative comments by health care professionals regarding a patient's weight contribute to insincerity toward the

patient and a negative work environment for staff (Ries, 2005).

Nutritionists report individuals with obesity as indulgent (87%), having family problems (74%), lacking will power (32%), compensating for lack of love or attention (88%), and having emotional problems (70%). Nurses have been found to be uncomfortable caring for obese patients (48%) and admit to prefer not to care for an obese patient at all (31%). In addition to this, 24% of nurses stated that they were "repulsed" caring for obese patients and 12% preferred not to touch an obese patient (Puhl & Brownell, 2001). Schwartz et al. (2003) have found that, despite being lower than in the general population, the negative stereotypes of individuals with obesity are even held by health professionals specializing in obesity.

Puhl and Brownell (2001) list some of the effects of the stigma that patients with obesity encounter in the health care setting. Among those effects listed is a decreased willingness to seek necessary medical care. Obesity is associated with decreased utilization of preventive health care services. Higher body mass index (BMI) measures are also associated with appointment cancellations. The reluctance to seek care can prevent early detection and ultimately increase health care costs of caring for individuals with obesity. The attitudes of health care professionals can provide a barrier to establishing healthy habits. In general, individuals with obesity were satisfied with the general care and knowledge of their physicians, but were less satisfied with obesity specific care.

These studies of the attitudes of health care professionals did not indicate whether the negative attitudes had an impact on practice. Also, factors other than professional bias may contribute to a reluctance to seek medical care. The anxiety that individuals with obesity experience associated with being weighed or disrobing may cause these

reactions regardless of how supportive professionals are. However, addressing the bias that individuals with obesity face when receiving medical care is crucial. There is a need for health care professionals to recognize obesity as a chronic medical condition, improve knowledge of causal factors for obesity, become familiar with community resources, create health care environments that are accessible, and treat all patients with respect and support (Puhl & Brownell, 2001).

### *Occupational Therapy*

#### *Profession*

Occupational therapy is a client-centered allied health profession that focuses on helping people participate in meaningful activities, what occupational therapists call occupations. This participation is a therapeutic medium to enhance the ability of clients to engage in activities that they find meaningful. The “areas of occupation” defined in the OT Practice Framework (American Occupational Therapy Association, 2002) are activities of daily living (ADL’s), instrumental activities of daily living (IADL’s), education, work, play, leisure, and social participation. ADL’s involve self-care and include activities such as bathing/showering, bowel and bladder management, dressing, eating, feeding, functional mobility, personal device care, personal hygiene and grooming, sexual activity, sleep/rest, and toilet hygiene. IADL’s include caring for others or pets, community mobility, financial management, health management, home management, meal preparation, safety, and shopping. When the ability to perform these activities interferes with daily life, an occupational therapist can apply specialized expertise in order to help the client increase functional performance. Occupational therapists work in a variety of settings including hospitals, outpatient therapy, schools, community agencies, private practice, residential programs, nursing homes, and home

health.

### *Occupational Therapy and obesity*

With the growing prevalence of obesity in the United States and other developed countries, occupational therapists will inevitably come into contact with individuals with obesity in any setting in which they work. Because of the associated health risks of obesity, many clients referred to occupational therapy for other conditions present with obesity as a secondary condition. Obesity significantly impacts the quality of life of affected individuals and constrains occupational performance. The occupational therapy profession is compatible with the needs of this population. Fatigue, limited range of motion, shortness of breath, chronic pain, and depression associated with obesity can have a significant impact on ADL's, employment, and leisure activities (Forhan, 2004). Back pain, arthritis, biomechanical dysfunction, skin breakdown, cardiopulmonary compromise, and neuropathy also present challenges to the occupational therapist (Goodman, 2003). Critical care referrals to occupational therapy are made upon admission to the hospital (Hurst et al., 2004).

### *Core values of Occupational Therapy*

The American Occupational Therapy Association (1993) established seven core values held by the profession. When a profession defines the essential values of their practice, these values are ideally embraced by all within the profession. Interactions with individuals receiving services, colleagues, and society at large should reflect these values. It is suggested that an individual indicates one's values through actions and attitudes.

The seven core values are altruism, equality, freedom, justice, dignity, truth, and prudence. Altruism is defined as an "unselfish concern for the welfare of others (American Occupational Therapy Association, 1993, p. 1085)." Commitment, caring,

dedication, responsiveness, and understanding are components of this value. Equality involves the belief that all individuals have the same fundamental rights and should have the same opportunities. This value is reflected in fairness, impartiality and a respect for all individuals. Freedom involves allowing the individual to make independent choices. Justice is defined as upholding moral and legal principles of fairness, equity, truthfulness and objectivity. Based on this value, occupational therapy professionals should aspire to provide services to all individuals that qualify. In the therapeutic relationship, the therapist must remain goal-directed and objective. The value of dignity involves appreciating the inherent worth and uniqueness of a person. Aspects of this include empathy, respect, and a holistic view of the individual. There is a recognition that dignity is influenced by a sense of competence and self-worth. In treatment, occupational therapists recognize and build on the strengths of the client. The value of truth involves being faithful to facts and reality. This value involves accountability, honesty, forthrightness, accuracy, and authenticity. In addition, valuing truth involves a commitment to learning, self understanding, and interpersonal competence. Prudence is defined by using reason and evidence based practice to guide actions (American Occupational Therapy Association, 1993).

Based on these values, occupational therapists have several responsibilities to clients with obesity. An attitude of commitment and understanding would be a key component of care. An occupational therapist could be expected to believe in and defend the rights of individuals with obesity. The therapist would see the individual as a valuable, worthwhile person, even if the client does not respond readily to the program. Occupational therapists would strive to provide services that would benefit these individuals. Occupational therapists could be expected to recognize the inherent worth

and strengths of the individual and not reduce the client to the condition of obesity. These values also suggest that, if applied to obesity, the profession would be striving to increase the knowledge base of the occupational impact of obesity. Practitioners could be expected to gain an awareness of the perceptions that they hold toward individuals with obesity and would use reason and evidence based practice instead of bias to guide interaction with clients. Any negative stereotypes held by occupational therapists toward individuals with obesity would contradict the established values of the profession.

#### *Occupational Therapy intervention*

The Occupational Therapy Practice Framework (American Occupational Therapy Association, 2002) lists the intervention approaches and types that can be utilized by the occupational therapist in treatment. Approaches include create/promote, establish/restore, maintain, modify, and prevent. The create/promote approach designs an enriched environment that benefits all people without assuming the presence of a disabling condition. The establish/restore approach focuses on skill development or improvement of a lost ability. Maintenance supports clients in preserving regained capacities. Modification involves changing the environment or task to enable performance. Prevention targets treatment to individuals at risk for problems with occupational performance. These intervention approaches can be applied to occupational therapy treatment for individuals with obesity.

Common goals for occupational therapy intervention for clients with obesity include establishing or restoring self-care skills, ADL skills, increased self-esteem, leisure pursuits, establishing healthy routines, and skin protection (Clementson, 2003). While working toward these goals, it is important to focus on the health benefits instead of weight loss. In addition to this, the therapist must work with the client to develop



personal goals and design a program that the client enjoys and will comply with (Goodman, 2003).

Using the Rehabilitation Model of Practice, occupational therapists can use modification through involvement in the selection of equipment appropriate for clients with obesity. In addition to this, adaptive equipment for self-care tasks such as long handled sponges, reachers, wipers, and elastic shoelaces are used for energy conservation, range of motion limitations, and mobility deficits. Although it may seem counterproductive to use these energy conserving techniques, it may be an effective method to allow energy to be spent on meaningful activities that increase self-esteem (Forhan, 2004). Adaptive devices are used to conserve energy for exercise and social interactions. Occupational therapy treatment attempts to improve the quality of life and maximize skin integrity by teaching proper techniques. In addition to this, the occupational therapist could be responsible for home assessments and community reintegration. For these clients, many of whom have been homebound for years, outings to stores or restaurants may be a valuable treatment technique (Clementson, 2004).

Aquatic therapy is a valuable intervention technique that occupational therapists with specialized training can offer to individuals with obesity. Individuals who cannot perform exercises on land may be able to in water because of the gravity eliminated environment. The buoyancy effects of the water decrease body weight and the stress on joints. Exercise is often tolerated better in aquatic treatments (Clementson, 2004).

Occupational therapy interventions may also focus on establishing healthy habits through behavior modification. The Lifestyle Redesign Program at the University of Southern California involves participation of patients in a 6 month program. During these six months, occupational therapy treatment is concerned with achieving a

reorganization of lifestyle that extends beyond dieting. Healthy eating and activity habits are developed. Positive outcomes of this program have included improved surgery outcomes or elimination of the need for surgery, reduced dependence on diabetes medications, and healthy plans for eating within a busy schedule. Through weekly monitoring and long term support and communication, habits are formed that help maintain weight loss (University of Southern California, 2004).

If interpersonal skills are a barrier to occupational performance or weight loss, the occupational therapist can address social skills training. Obese individuals often respond to the condition with either a dominant personality or the belief that they are undeserving of any care. It is also possible that they view their size as an asset if in an authoritative position (Forhan, 2004). Social skills training can work on these issues to help reduce barriers to progress.

Monitoring of the patient during therapy is critical. Complications that could occur in response to activity include angina pectoris or MI, increased blood pressure, joint problems, ligament injuries, falling, excessive sweating, skin disorders, hypohydration, reduced circulation, and heat stroke or exhaustion (Goodman, 2003).

The occupational therapist can also provide resources in the community that the patient can utilize. Occupational therapy outcomes include healthier routines for eating and activity, weight reduction and maintenance, increased independence in self care, and improved self-esteem.

#### *Therapeutic use of self in Occupational Therapy*

The OT Practice Framework lists the therapeutic use of self in occupational therapy as an intervention type. Therapeutic use of self is defined as the "planned use of his or her personality, insights, perceptions, and judgments as part of the therapeutic

process" (American Occupational Therapy Association, 2002, p. 49). This valued component of therapy involves an awareness and use of self in relationship with clients. It reveals an assumption that the therapeutic relationship can encourage growth of a client. This component of treatment deserves particular attention in the treatment of individuals with obesity because of the stigma that these individuals face.

There is a value of allowing the client to experience himself in the context of a real relationship. This component could be particularly therapeutic for an individual with obesity who has experienced stigma and discrimination from others for years. Mosey (1981) (as cited by Crepeau, Cohn, & Schell) described this therapeutic relationship as "the art of occupational therapy" and involving the therapist attempting to establish rapport, empathize with the individual, and guide others to know and make use of their potential (p. 157).

The therapist is expected to view the person as a whole. The attitude toward the client is characterized by empathy and an appreciation of the individual's values. Empathy involves thinking and feeling as if one were in the other's world. It should not be confused with sympathy, which implies pity and crosses professional boundaries. Instead of viewing empathy as a fusion with the individual's pain as in sympathy, it should be seen as a connection to the person. The dignity and courage of the individual is recognized as well as the challenges the individual faces (Crepeau, et al., 2003).

In health care, the client can be empowered by a therapist's willingness to understand. From the confidence of the health care professional, the client can be encouraged. A practitioner's behaviors give an impression to the client of the professional's attitude (Crepeau et al., 2003). The therapist's self confidence, ability to be honest and open, unconditional positive regard, and empathy are valued components

of occupational therapy treatment. This therapeutic use of self can be used to encourage hope in the therapeutic process.

### *Hope as motivation in therapy*

Individuals with obesity may approach therapy with a discouraging history of discrimination and shame. Past attempts at losing weight may have been unsuccessful, leading to a feeling of failure. Because of this, the occupational therapist can help the client establish a realistic hope. Mattingly & Fleming (1994) say, "Effective therapy requires that patients be committed to a long path where gains are so slow they are difficult to perceive . . . Therapists must address the problem of motivation. They must tap into commitments and values deep enough within patients to commit them to such a process (p. 76)." This involves envisioning a positive future for the client and communicating this hope. Hope is a desire accompanied with the expectation of obtaining and a belief that the desired outcome is attainable (Neuhaus, 1997). It has been described as an active expectation. Hope was included as an essential principle in the writings of Fay and March (1947) (as cited in Neuhaus, 1997), who state that communicating hope to the patient is the role of the occupational therapist. However, this concept was lost in subsequent literature. Hope is involved in the therapist's use of narrative reasoning, as the therapist is expected to focus on the possibilities for the client (Neuhaus, 1997).

Stotland 1969 (as cited by Neuhaus, 1997) suggests that hopefulness is a necessary condition for action. An individual's motivation is influenced by the perceived probability of attaining the goal and the importance of that goal to the individual. Hope carries therapeutic value that is a necessary component for growth and change. The communication of hope by others can have a significant positive impact, even impacting

survival.

A therapist can encourage the establishment of hope through active listening, establishing support systems, communicating humor/courage/determination, teaching reality surveillance, affirming personal worth, sharing memories, caring, giving choice, fostering spiritual base, assisting the patient in making plans, and assisting with coping. Roles of the therapist in facilitating hope are to be encouraging, displaying enthusiasm for progress, maintaining a future focus, encouraging peer support, and focusing on the client's immediate needs (Neuhaus, 1997). Specifically with obesity, reminding clients of the health benefits of even small reductions in weight can be encouraging. In addition to this, the professional can communicate confidence, provide feedback, encourage the individual to accept gradual progression, encourage goal-setting, and support confidence in the ability to achieve realistic goals (Neuhaus, 1997). Goal-setting can be a key component of the therapeutic process as the client learns to set realistic expectations and gauge limitations. Through the therapeutic process, past experiences may be reinterpreted. "One of our unique capabilities as occupational therapists is the provision of opportunities for meaningful doing that can become transforming experiences, thereby creating a belief in possibilities that were thought lost or were never imagined (Spencer, Davidson, & White, 1997, p. 197)."

#### *Implications of obesity stigma on occupational therapy practice*

There are not any studies in the occupational therapy literature that indicate the attitudes of occupational therapists toward individuals with obesity. However, the attitudes of therapists toward the client could have an impact on the quality of care that occupational therapists provide. The values of the profession include recognition that the attitude of the therapist can serve a therapeutic purpose. Conversely, a stigma would

contradict the values of the profession and could be a barrier to effective therapy. It is important to investigate the factors that impact attitudes and the quality of care individuals with obesity receive.

### *Summary*

With the growing rates of obesity in the United States and other developed countries, occupational therapists will increasingly be involved in the care of individuals with obesity because of the associated health risks. Although the medical complications associated with obesity can be an overwhelming list to consider, the effects of the stigma so present in American society cannot be overlooked in therapy. In addition to directing intervention toward physical concerns, occupational therapists can target the emotional and social concerns that result from years of facing discrimination and stigma. However, it is necessary to determine the extent to which occupational therapists carry this stigma so that these attitudes can be addressed and treatment will not be compromised.

## Chapter 3: Methods and Procedures

### *Overview*

The purpose of this study is to investigate the attitudes of occupational therapy practitioners toward obesity and identify the facilitators and barriers to treatment for this population. This information will increase the knowledge of the hypothesized stigma toward obesity and give insight into personal attitudes toward this condition. Although individuals with obesity tend to experience various limitations in function that could be addressed by occupational therapy, very little can be found in the occupational therapy literature to guide treatment. As occupational therapists increase contact with individuals with obesity, it is important that the basic values of the profession are applied. The data gathered will provide practical information about the current status of obesity in occupational therapy and help identify demographic and facility factors that impact the quality of care provided for individuals with obesity.

The study is a mailed survey research design. The survey instrument includes demographic information, clinical experience with obesity, and the Attitudes Toward Obese Persons Scale (ATOP) (Rudd Institute, 2003). It is a mail survey following a modified Dillman format. (Dillman, 1978). An initial survey packet was mailed to all potential participants. Three weeks later, a reminder post card was mailed to all individuals who had not yet responded. Later, a final survey packet was mailed to all individuals who still had not responded.

### *Participants*

A randomized list of 250 occupational therapy professionals was obtained through the American Occupational Therapy Association (AOTA). This list included both occupational therapists and certified occupational therapy assistants. Professionals

working in various clinical settings and areas of the country are included in the study. Inclusionary criteria include being a registered occupational therapist or certified occupational therapy assistant, over the age of 18, and currently practicing.

### *Operationalization of Concepts*

A demographic questionnaire created by the primary researcher provides personal information about the participant. Items 1-12 are demographic in nature regarding professional designation, education, gender, years of practice, work setting, client population, living environment, age, height, weight, and self-perception. This is followed by items 13-22 regarding clinical experience with obesity. Items 13-17 relate to caseload, formal education on obesity, continuing education, and disparaging statements from health care professionals. Items 18-22 ask the participant to rate their agreement or disagreement to statements about effectiveness of occupational therapy, access to equipment, confidence with transfers, staffing, and overall perceptions of the work environment. Data includes professional and educational status, setting characteristics, and personal characteristics. Questions also relate to clinical experience with obesity.

The Attitudes Toward Obese Persons Scale (ATOP) available through the Rudd Institute (2003) was used to measure the attitudes of occupational therapy professionals toward obesity. This instrument is a 20 item six point self-report Likert scale of attitudes toward obese persons that results in a total score.

### *Measurement Instruments*

A demographic questionnaire created by the primary researcher provides personal information about the participant. Responses to questions concerning professional and educational status, personal characteristics, and setting characteristics are indicated by selecting the appropriate response. Qualitative data about facilitators and barriers to



practice are included in the instrument.

The Attitudes Toward Obese Persons Scale (ATOP) was used to provide quantitative data about the attitudes of occupational therapists toward individuals with obesity. Permission to use this tool was provided by the Rudd Institute (2003). The ATOP includes 20 statements rated on a six point Likert Scale. It is a standardized scale, modeled after the Attitudes Toward Disabled Persons Scale. It is intended to measure the attitudes of participants toward obesity. High scores indicate positive attitudes. The coefficient alpha reliability for this scale is 0.80-0.84 (Allison, Basile, & Yucker, 1991). The scale was converted to a chart format for ease of reporting.

#### *Pilot Testing*

The survey was reviewed by experts in the field and modifications to the instrument were made based on the feedback provided. A pilot of the survey was performed with eight graduate students and changes were made based on participant suggestions.

#### *Confidentiality*

The participants were not asked to give their name or social security number on the survey. Envelopes containing the returned surveys did not have a return address. All data was kept in a locked cabinet with only the researcher and thesis committee allowed access. The research assistant used a numeric coding system to track all returned surveys. Each participant received a random code number connected to his or her mailing address. The assistant placed the random code number *only* on the preaddressed envelope. Participants returned the survey to the research assistant who documented all codes, opened the envelope, and gave the non-coded surveys to the researcher. The researcher had no knowledge of the coding system and the research assistant destroyed

all coding and addresses at the end of the study.

### *Data Gathering*

Mail surveys were distributed following a modified Dillman format. An initial survey packet was sent to potential participants. A follow-up reminder postcard was mailed to all individuals who had not yet responded. Finally, a second survey packet was mailed to all individuals who had not yet responded. Data was collected from October 2005 to January 2006.

### *Analysis and Interpretation*

Data analysis included descriptive and inferential statistics using SPSS 13.0. (SPSS, Inc., 2004) Descriptive statistics were used to provide information on the current status of occupational therapy in the treatment of individuals with obesity and provide information about the attitudes of occupational therapists toward individuals with this condition. Correlational statistics explored the relationships of different variables to suggest factors that may influence attitudes. Qualitative data was analyzed by compiling and categorization into themes. An alpha level of  $p < .05$  was set to determine significance of results.

### *Delimitations*

The results of the ATOP will only provide information on the attitudes of occupational therapists toward obesity. This study will not be able to compare the attitudes of occupational therapists toward obesity to their attitudes of other conditions. In addition, this study will not be able to compare the level of stigma present among occupational therapy professionals to other professionals or the general public.

### *Assumptions*

It is assumed that personal attitudes can be influenced by a variety of factors. In

addition, it is assumed that participants responded honestly to all items and are capable of self-reporting attitudes accurately. Also, it is assumed that the ATOP is an accurate measure of attitudes towards individuals with obesity.

#### *Limitations*

This study will only determine whether occupational therapists have a stigma toward obesity. It cannot determine to what extent a stigma impacts the treatment of clients with obesity. In addition, it is possible that occupational therapists may be unable to report or unaware of negative attitudes towards individuals with obesity. The sample size is also a limiting factor.

## Chapter 4: Results

### *Participants*

Participants were registered occupational therapists and certified occupational therapy assistants with membership in the American Occupational Therapy Association. Of the 250 members recruited for the study, a total of 145 completed surveys were returned, resulting in a return rate of 58%. The professional designation of the sample population was 86.9% registered occupational therapists (n=126), 12.4% certified occupational therapy assistants (n=18), and 0.7% other (n=1). The education levels of the participants were 8.3% associates degree (n=12), 54.5% bachelors (n=79), 33.1% masters (n=48), 2.8% Doctorate (n=4), and 1.4% other (n=2). The sample population was 94.5% female (n=137) and 5.5% male (n=8). Ages ranged from 23-67 years with a mean of 42.35, SD 10.456. Years of practice ranged from 1-41 years with a mean of 15.18 and standard deviation of 9.992. Body mass index (BMI) distribution in the sample population was 56.6% average (n=81), 23.8% overweight (n=34), 19.6% obese (n=28). Self classification of body weight was 1.4% underweight (n=2), 57.6% average (n=83), 36.1% overweight (n=52), 4.2% obese (n=6), and 0.7% severely obese (n=1). Only 12.5% of participants have received formal education on obesity (n=18) and only 16% have received continuing education on obesity (n=23).

### *Facility Factors*

The sample population represented a broad range of clinical experiences. The work settings of the participants were 25.4% school (n=34), 16.4% nursing home (n=22), 13.4% inpatient (n=18), 11.2% outpatient (n=15), 10.4% private practice (n=14), 3.7% community agency (n=5), 0.7% residential program (n=1), and 18.7% other (n=25). Client diagnosis distribution was 53.2% physical disabilities (n=67), 34.1%

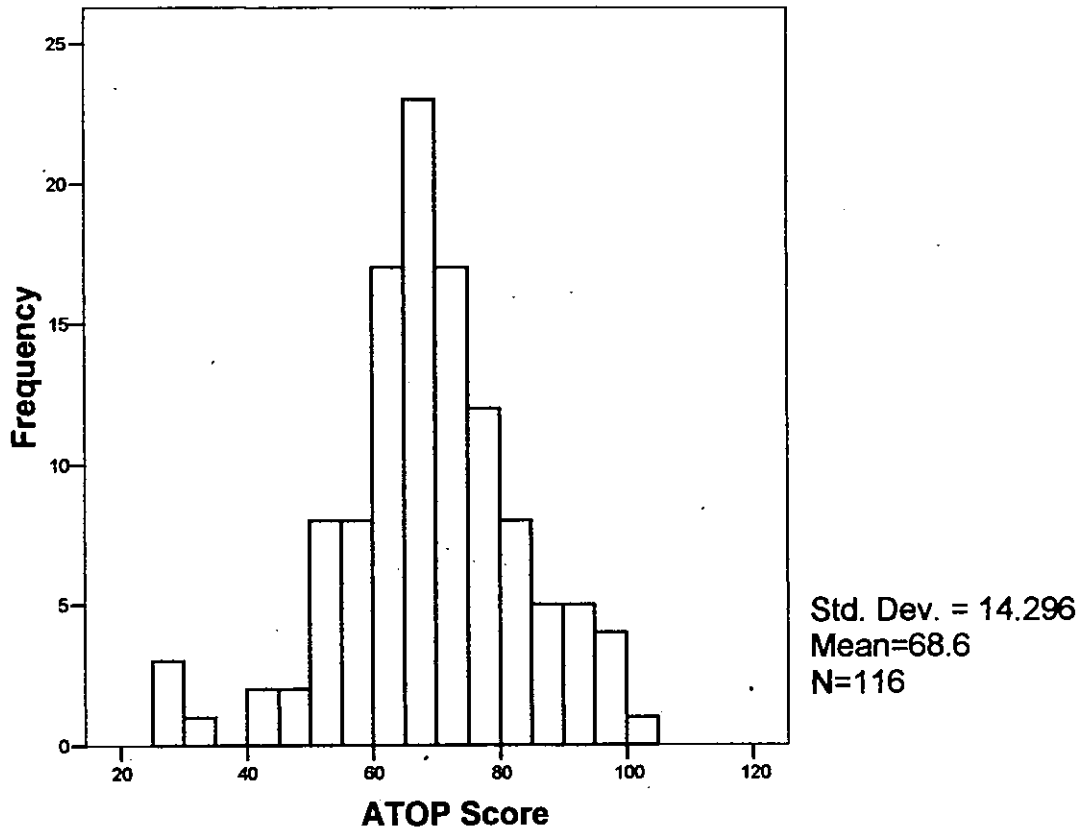
developmental disabilities (n=43), 4% mental health (n=5), and 8.7% other (n=11). The patient population was 60.3% adult/geriatric (n=85) and 39.7% pediatric (n=56). While only 21% of participants report having clients with a primary diagnosis of obesity on their caseload (n=30), 51.7% report having clients with a secondary diagnosis of obesity (n=74). Disparaging statements from health care professionals regarding a client's weight in the workplace was reported by 67.1% of participants (n=96).

Comfort with transfers, equipment, staffing, positive work environment, and belief in occupational therapy effectiveness for individuals with obesity were measured on a 5 point agreement/disagreement scale with 1 indicating a strong agreement that the factor is adequate at the facility. The mean responses for each factor were as follows, comfort with transfers (M=2.6, SD 1.091), equipment (M=2.5, SD 1.095), staffing (M=2.38, SD .999), positive environment to treat obesity (M=2.3, SD .813), and belief in occupational therapy effectiveness for this population (M=1.76, SD .738).

#### *Attitudes Toward Obese Persons Scale*

The results of the Attitudes Toward Obese Persons Scale (ATOP) were analyzed using descriptive statistics such as means, standard deviations, and valid percents to measure attitudes of occupational therapists toward individuals with obesity. A histogram of the scores on the ATOP can be found in Figure 1. Scores on the scale ranged from 27-101, with higher scores indicating more positive responses. The mean score on the ATOP was 68.6, with a standard deviation of 14.296. Scores under 60 were received by 20.7% of the participants (n=24). A cumulative percent of 52.6% scored under 69 (n=61).

Figure 1. Attitudes Toward Obese Person Scale Scores.



### *Testing the hypothesis*

The first hypothesis in this study was that demographic factors could influence attitudes towards obesity. This hypothesis was not supported by the data. Table 1 shows the results of the Chi-square tests of association for demographic factors to poor (0-60), medium (61-80), and high attitudes (81-120) on the ATOP scale. As shown in the table, differences between groups were not significant at the  $p < .05$  level. This indicates that attitudes tended to be similar independent of professional designation, education, gender, years of practice, living environment, age, BMI, self-classification of body weight, belief in occupational therapy effectiveness, and obesity specific education.

The second hypothesis in this study was that facility factors could influence attitudes towards obesity. This hypothesis was not supported by the data. Table 2 shows the results of the Chi-square test of association for facility factors to attitude level on the ATOP. As shown in the table, differences between groups were not significant at the  $p < .05$  level. This indicates that attitudes tended to be similar independent of work setting, diagnosis, patient population, caseload characteristics, hearing disparaging statements, equipment, comfort with transfers, staffing, and positive environment to treat clients with obesity.

### *Qualitative Data*

Qualitative responses regarding facilitators and barriers to practice for individuals with obesity were categorized into themes. Facilitators to practice include client factors, resources, team attitude, increased attention to the condition of obesity, and teamwork and related services. Barriers include client factors, resources, team attitude, lack of education and research, safety, accessibility, reimbursement, and social and

Table 1

*Relationship of Demographic Factors to ATOP Scores*

	Chi-square statistic	Significance
Professional Designation	1.249	.870
Education	5.579	.233
Gender	.523	.770
Years of Practice	8.323	.215
Living Environment	2.863	.239
Age	2.995	.809
BMI	1.282	.864
Self-classification	9.292	.318
OT effectiveness	6.080	.414
Formal Education	2.397	.302
Continuing education	.546	.761



Table 2

*Relationship of Facility Factors to ATOP Scores*

	Chi-square statistic	Significance
Work setting	7.380	.832
Diagnosis	4.264	.641
Population	3.793	.435
Primary Diagnosis	1.606	.448
Secondary Diagnosis	.248	.884
Disparaging statements	1.977	.372
Equipment	6.906	.547
Comfort with transfers	9.498	.302
Staffing	8.760	.363
Positive Environment	9.947	.127

environmental factors that contribute to poor nutrition and decreased physical activity. these facilitators and barriers will be discussed in further detail.

### *Facilitators*

#### *Client factors*

Physical and psychological factors of the client that support therapeutic progress were mentioned as a facilitator to practice. This includes a patient with a positive attitude, attitude toward occupational therapy, and motivation. Carryover of the treatment to the home environment was mentioned as a facilitator. In addition, cognitive function and physical capabilities of the client are mentioned. One participant summarizes this as "Obese patients free of other medical problems and at least some muscle power (grades 3 and above) are easier to treat. Of course the motivation level of the patients themselves plays an important role." In addition to listing physical and psychological strengths of clients, one participant mentioned that the "need for OT" to provide adaptive equipment and therapy was a facilitator to practice.

#### *Resources*

The availability of resources was mentioned by many respondents as a facilitator to practice. Equipment for this population has been designed and facilities are becoming aware of the need to provide necessary equipment and accessible facilities. Participants state "New equipment designed for bariatric patients" and a "willingness to obtain equipment needed" as facilitators to practice. In addition to listing specific equipment, accessible facilities are also mentioned. Two respondents reported staffing as a facilitator to practice, with one commenting that "there is much staff to participate with treatment of clients."

#### *Team attitude*

Positive attitudes from staff were mentioned as a facilitator to practice. This includes recognition that these individuals are to be treated with respect and dignity. Participants suggested that supportive staff members with a "more open approach regarding all persons/backgrounds" and a "willingness to treat all people the same" enhance quality of care. Participants recognize that "size does not equal the individual" and "it is so important to remember they are human beings and are to be treated with respect and patience." A facility effort to promote positive staff attitudes through "bariatric sensitivity in the work place" was mentioned by one respondent. It was recognized that a therapist that does not blame the client for the condition supports practice.

Personal experience of weight concerns of staff is mentioned by several respondents. Participants mentioned that this factor can increase empathy and serve as a positive role model for clients. In addition to understanding the experience of obesity, the fact that "many of us are obese yet functioning well," can serve as a model and offer the "support of those who have been obese and changed their lives in positive ways."

In addition, the philosophy and values of the occupational therapy profession were mentioned as facilitators to practice. Participants listed "the basic desire and goal to help people," "client centered care that accepts clients as they are," and "OT perspective I believe, hopefully correctly" as examples of the profession's values in relation to treating patients with obesity.

#### *Increased attention to obesity*

The increased attention to obesity from the public, health care professionals, researchers, and legislators was also a theme that emerged as a facilitator to practice for individuals with obesity. There is increased "knowledge about diagnosis and reasons for

obesity.” Participants also mention that “research to better understand this illness is underway” and that there is a “recent recognition of rehab community that obesity is a growing concern.” Increased education of health professionals and more services available in the community were mentioned by several respondents. As one participant states, “hospital is finally seeing the need to have adequate equipment to care and transfer these individuals mostly brought on by the advent of lucrative gastro-bypass surgery with its many complications.” Facility training was also mentioned as a facilitator with comments such as, “At my facility we spend much time encouraging safety with transfers.” Training in the psychosocial issues and nutrition were also mentioned. This condition is also gaining attention in legislative arenas and one respondent mentions, “The new act that was passed to allow children at least 30 minutes of physical education a day was a good idea.”

#### *Teamwork and Related Services*

Nineteen respondents reported teamwork and related services as a facilitator to practice. This includes a team approach to transfer, referrals to other professionals such as dieticians and vendors of specialty equipment, and other medical and support services available in the community. Family and caregiver involvement is listed as an important component of the team approach. This theme is reflected in participant comments such as “Team approach if obesity is a factor that requires multiple personnel to transfer patient.” In addition, other services, such as “some of the radical surgery choices for obese people,” “nutritional counseling,” “multiple agencies to help,” and “vendors who assist with specialty equipment/coverage” are mentioned. Health and wellness programs that “include education on nutrition and exercise,” and the positive impact of emotional support from family and health care professionals are listed.

## *Barriers*

### *Client factors*

Client factors were mentioned as a barrier to therapy and include a patient's attitudes and the presence of related conditions and challenges. A lack of motivation was listed by participants and included comments such as "I work with the geriatric population. I interpret their attitude as being resigned to obesity. Not willing/interested in doing something about it." A negative attitude from the client was described in comments such as, "lazy, angry, using weight as limitation." Long term compliance from these clients was also a concern listed by participants.

Related physical conditions and challenges were listed as barriers to therapy. For example, issues listed as concerns for therapy related to musculoskeletal impairments, limited mobility, fatigue, pain, issues with nerve irritation, and multiple health complications. Other concerns included the increased challenge of managing movement. Challenges to therapy are presented by difficulty performing hygiene and activities of daily living, difficulty performing myofascial work, difficulty with palpation, application of thermal agent modalities, and skin breakdown.

Psychosocial issues experienced by the client are also noted by respondents as barriers to practice. As one participant said, "Social pressures can cause depression, isolation." Others listed emotional instability and denial by the client as barriers. In addition, it was recognized that these concerns may prevent patients from seeking treatment.

### *Resources*

Resources available at the facility were mentioned as a barrier to practice for individuals with obesity. Barriers include access to adequate equipment, limited staffing,

and limited time and space.

Equipment was listed as a barrier to practice by participants. Equipment may not be available at all times. As one participant states, "At times there is not enough equipment for the needs of all patients." This idea is also reflected in statements such as, "only a few pieces of equipment for the entire hospital to share" and "have some items, but few." The size of chairs and other equipment may be a problem. In addition, equipment options are more limited for the very obese patient. Issues encountered with equipment include, "ease of getting bariatric equipment from outside companies," and the fact that it may take several days to special order this equipment if necessary. This presents the challenge that it "may take a couple days if bariatric equipment is not available." Settings involved with home health express unique concerns with equipment in the client's home, including access and length of time involved in ordering equipment for the home. In addition, adaptive equipment options for clients may not be adequate. Another barrier regarding equipment is the cost, space, and maintenance required.

Staffing concerns were also expressed by participants. Participants suggest that treatment for individuals with obesity "requires increased staff" and at times, there is "not enough people to help with transfers." This can result in delays of treatment. Additional concerns with staffing include lack of qualified staff. "At times, definitely not many people trained in quality transfers for safety."

Space and time were also listed as barriers. Limited space in the therapy area is a concern for treatment. In addition, one participant says, "It does take longer to problem solve the issues faced with ADL re-training with persons who are obese and to implement them as they sometimes have increased shortness of breath and don't increase strength/endurance as quickly." This is time that may not be available to therapists with a

heavy caseload.

*Team attitude*

There were 40 comments indicating negative staff attitudes and blaming of the client as a barrier to practice. Stigma, lack of understanding, lack of respect, prejudice, stereotypes, and fear were mentioned by respondents. As one participant states, people, "including health care professionals can be mean spirited regarding persons with obesity." Participants suggest that these attitudes can be reflected in "body language when working with obesity" and "judgmental behaviors (side comments, lack of knowledge regarding physical capacity of an obese patient)." One participant lists negative attitudes of staff members by saying, "I also contract with nursing homes and find that when there is a larger person there, the staff grumble more over care provided for that person. They are not as willing to help." Negative attitudes from other professionals were reflected in "staff level (nursing and other support staff) have a very negative attitude toward these individuals." There is a recognition that the "negative attitudes from society and health care providers may hinder some people from receiving help." One participant even says, "Yes-obese people do smell often...Personally, I find it repulsive. At the same time I am as respectful as I can be."

Another theme that emerged within staff attitudes is a lack of hope and confidence level of the staff. One participant says, "At times, I get referrals to OT for obese kids- generally, there is little I can do as there is very poor follow through at home or by the child. The entire lifestyle needs a rehaul . . . It is a losing battle. . . I know many women who have had obesity operations- bowel and or stomach. They do lose weight (one over 100 lbs.). Often they are still obese."

Another barrier involved with staff attitudes is the issue of blame. Some people

recognize that obesity can be seen by individuals as a choice or a weakness. This is reflected in statements such as "Lack of self-discipline" and "Improper diet, especially non-compliant patient." Comments indicating attribution of blame include, "To me it is a layer of protection from childhood pain or abuse. To me, as it continues into adulthood-eating styles represent depression, lack of caring, defeatism, and lack of knowledge." Some participants suggest that diet non-compliance is the cause of the condition. One participant reflects this belief in "Obese people that I know do not eat as many, if any fruits and veggies. Chemicals, additives, and hydrogenated oils, plus white flour and sugar=obesity!! It's simple."

Weight concerns of the staff were also mentioned by participants. Participants mention "other's fear of becoming overweight themselves" and "staff perceptions of their own weight and eating habits." Another participant states, "I am slim and have had comments made on the way I stay small. Many obese people think it's genetics and say things like 'It must be nice to eat what you want.' I try to educate on moderation, variety and using some form of physical activity for exercise." In addition, one participant commented regarding Item 10 on the ATOP, "Most people feel uncomfortable when they associate with obese people," saying, "Especially if one is underweight."

#### *Lack of Education/training*

Lack of education and training regarding obesity emerged as a barrier to practice. This barrier includes lack of understanding about the condition of obesity and techniques for treatment. Participants mention that they have a lack of experience with techniques to care for these individuals. The need to train other staff in the facility was indicated in the statement, "Lack of knowledge of available equipment by the non-therapy staff."

Without proper education and training, facilities cannot provide the highest quality of



care for these patients. This is reflected by one participant stating, "Obesity has become a national epidemic with severe consequences for those experiencing it. I believe as a health care system we are not properly treating these individuals and that our medical and social systems are actually doing a disservice to these people everyday. Too often a person who is obese is not even told by their doctor for example that lifestyle changes are VITAL to their health. It becomes easier to pass on a medication and let the obese patient leave the office rather than confronting the real issues and supporting change."

A need for increased research and training was mentioned by participants. One participant states, "If health practitioners and researchers want to learn more to help people in better ways, their success will be publicized by the media and hopefully decrease stigma." In particular, a lack of attention to this condition in the occupational therapy literature is also mentioned in comments such as, "Need increased coverage of this population in OT literature." In addition, the "lack of specific OT programs for management" is a barrier to providing effective care. There is a need to provide education regarding this condition and one participant stated, "I would attend a seminar regarding obesity."

### *Safety*

Increased safety concerns when working with this population is listed as a barrier to practice. One participant recognizes the impact of safety concerns by stating, "concern over re-injuring my back so my therapy is not as effective/efficient as non-obese patient." Another says, "I have been working too long in the profession to jeopardize my health. I have back problems." Safety concerns present unique issues in home health, where the therapist often works alone. One participant states, "As visits are completed at home, sometimes safety and prevention of injuries prevents the completion of all modalities that

may benefit patient (could not work on standing or transfers consistently with one patient because of lack of help, not cost effective to send two therapists or hire an aide and family not always available).”

### *Accessibility*

Physical accessibility in health care settings and the public was also mentioned as a barrier to practice. One participant says that the “typical environment has too many barriers. . . need society to accommodate all types of people.” The need to address this accessibility concern was described by one participant as, “It reminds me of the 1970’s when curb cuts were being put in so wheelchairs could be integrated into society.” During community outings, accessibility is a barrier to practice. Barriers are encountered in seat sizes in “movie theaters, airplanes, public facilities,” and waiting areas. In addition, home modification may be necessary as the patient’s home is often inaccessible as well.

### *Reimbursement*

Respondents reported financial barriers to practice. The cost of equipment can be a concern and reimbursement may be a problem. Obesity is not covered by most insurance. One participant says, “Depends on where services can be provided and how OT would be paid. Obesity is not currently covered by health insurance. Settings and funding would shape what OT could offer.” Another statement is “Obesity needs to be seen as an illness. There is no support for people to get help. It is not covered by health insurance.” In addition, as occupational therapists, we “usually have only short term treatment reimbursement” which may be inadequate to show therapeutic gains.

### *Societal and Environmental Factors*

Social and environmental factors that contribute to poor nutrition and decreased

physical activity are barriers to practice. The stigma that these individuals encounter daily from society is a barrier to establishing healthy habits. Families may be critical and as one participant says, "the obese person who needs compassion is instead victimized." Our society also presents barriers to adequate nutrition. This is expressed by one participant saying, "Unfortunately we live in a toxic environment where the FDA promotes making many and big business rather than true health." Another participant states, "many fast foods in this country are disgusting and promote ill health." School lunches and limited choice at meals were also mentioned as a barrier. "Definitely the school lunches. There are few choices which don't include deep fried food or fast food (ie chicken nuggets, corn dogs, pizza, etc.)." Lack of education of parents concerning nutrition and a lack of time to prepare healthy meals are barriers to the management of obesity.

Social and environmental trends that contribute to decreased physical activity are also a barrier to practice. As one participant states, "Since American lifestyles are more sedentary, predictions to increase numbers of adults and children with diabetes related health issues. Not good! Education programs and urban planning need to promote increased physical activity as a necessary part of health programming for families, more bicycle paths, walking paths, smarter snack options and nutritional labeling that is honest and not just devoted to sales. Let's get our health better than it is. Ultimately, we all pay for our poor eating habits." Parents may also have the belief that they have a "lack of time to...take kids to the park." Children have "decreased opportunities to play outside (safety)" and schools have "reduced (the) amount of gym/physical movement." Cultural factors are also a barrier to healthy habits and issues such as the media, cultural/ethnic foods, high prevalence of obesity in the area, and ethnicity are mentioned.

## Chapter 5: Discussion

### *Current Status in Occupational Therapy Practice*

Currently, most occupational therapy treatment of clients with obesity is as a secondary condition. Although only 21% treat obesity as a primary diagnosis, over one half of the participants report having clients on their caseload with a secondary diagnosis of obesity. This supports the assumption that occupational therapists will encounter individuals with obesity in any clinical setting and reflects the need to enhance the profession's preparation to provide quality care for these individuals. As only 12.5% of participants have received formal education on obesity and only 16% have received continuing education on obesity, this reflects a need to increase the profession's knowledge base in relation to the condition and management of obesity. Clinically, participants indicated the least agreement to comfort with transfers, followed by equipment, staffing, positive work environment, and belief in occupational therapy effectiveness.

### *Attitudes*

Results of the Attitudes Toward Obese Persons Scale (ATOP) were used to answer the question, "Do occupational therapists have negative attitudes towards obesity?" As scores ranged from 0-120, with higher scores indicating more positive attitudes, the number of participants scoring under 60 is reason for concern. Many items on the ATOP are phrased as a comparison to non-obese people. Therefore, strongly agreeing does not indicate the presence of a positive bias. The mean score ( $M=68.6$ ,  $SD=14.296$ ), while slightly above 60 is reason for concern considering occupational therapy's commitment to therapeutic use of self. Any negative stereotypes toward a client population contradict this value. In a client-centered allied health profession,

attitudes should be higher.

Limitations of the ATOP to measure therapist attitudes must be considered when interpreting the scores. A major limitation of this scale is the limitation of self-report. Occupational therapists may be unable or unwilling to report negative attitudes towards individuals with obesity. Also, there was no neutral response and several participants commented that this would have been helpful. The fact that scores could not be calculated for 29 participants due to failure to complete every item was also a limiting factor in this study. Also, the ATOP is designed to measure attitudes only and does not necessarily reflect the impact on treatment of the client with obesity.

### *Hypotheses*

#### *Demographic Factors*

The results of the Chi-square tests of association suggest that attitudes tended to be similar independent of demographic factors. Thus, the answer to the question, "Do demographic factors influence attitudes towards obesity?" appears to be no for the results of this study. These results are supported by Gipson et. al. (2005) which found that attitudes as measured by the ATOP were similar independent of weight and sex. However, in the current study, qualitative responses suggest that some demographic factors may be a barrier to practice. In particular, education and staff concerns regarding their own weight are listed as potential barriers and these factors may warrant the attention of researchers and the health care community.

#### *Facility Factors*

The results of the Chi-square tests of association suggest that attitudes tended to be similar independent of facility factors. Thus, the answer to the question, "Do facility factors influence attitudes towards obesity?" appears to be no for this study. However,

qualitative data suggest that further research considering these factors may be indicated.

Although attitudes tended to be similar independent of work setting, different issues emerged based on the work setting. Different considerations are necessary for practitioners in mental health, physical disabilities, developmental disabilities, school based occupational therapy, and home health. For example, practitioners in mental health discuss self-esteem and lifestyle factors, while home health practitioners discuss concerns with caring for these individuals independently. This survey was designed to be broad and include all settings. However, it may not have been specific enough to examine the unique issues encountered in the various settings and further research could explore the specific issues in each field. There were items regarding equipment and transfers that some participants indicated were not applicable to their work setting. Although participants indicated agreement to the adequacy of facility factors, they also listed these factors as barriers to practice. A more detailed evaluation of environmental factors may be necessary.

Although no difference in attitudes exists between practitioners treating pediatric and adult clients, the qualitative data reveal unanticipated results. There is little consensus among pediatric occupational therapy practitioners regarding the impact of childhood obesity on clinical practice. Some indicate that obesity is not a concern for pediatric therapy in statements such as, "Obesity issues rarely apply to my clients as they are children" and "since I work in a preschool setting even if the child is overweight for their age it does not pose a problem for us in relation to equipment or transfers." Others, however, mention that they have noticed that obesity issues can have an impact on practice. An example of this is a participant who said, "this one child has made us aware of the difficulty she has to engage in typical preschool activities and accessing the

environment. Difficult to help child access playground equipment, cannot move quick enough in case of emergency- would require at least two staff members to carry child out.” Based on research regarding childhood obesity and activity patterns of children, this is an important issue for occupational therapy to address. It is suggested that the foundation of healthy habits occurs in childhood (License, 2004). Poulsen & Ziviani (2004) suggest that occupational therapists have a role in encouraging the establishment of basic levels of physical activity as it is difficult to change patterns of physical inactivity in adulthood.

#### *Facilitators and Barriers*

As discussed previously, it is apparent that many of the same factors appear as both facilitators and barriers. From the responses, this seems to reflect that there have been recent advancements in the treatment of individuals with obesity. Knowledge about obesity is increasing as is interest in this condition. Equipment has been designed to meet the needs of these patients. Although improvements have been made in recent years, the fact that these factors continue to be listed as barriers indicates that further improvements are necessary. For example, although greater equipment options are available now, issues with ordering equipment, costs, and availability of enough equipment at all times continue to be concerns.

For factors such as client factors and staff attitudes, the fact that these appear as both facilitators and barriers indicates that there is a range. For client factors, it highlights the importance of considering each client's case individually and not making assumptions about physical and psychosocial functioning. For staff attitudes, the fact that it is listed as both a facilitator and barrier indicates the importance of addressing this issue. Also, the statements for staff attitudes in facilitators to practice generally indicate a

lack of negative attitudes, not positive attitudes. This indicates that the stigma towards obesity is beginning to be addressed, but that the stigma continues to persist in our society.

Staff attitudes are one of many barriers to practice for clients with obesity. Although demographic and facility factors were not related to therapist attitudes, they were listed as barriers to practice. It is important to recognize that all of these factors could have an impact on quality of care, which is the primary concern of occupational therapy practice. Each of the barriers must be addressed to improve quality of care.

It is also notable that many of the barriers to practice are areas that the field of occupational therapy could have a role in addressing. The physical and psychosocial factors that may be related to obesity can be a reason for occupational therapy treatment. The therapist can encourage lifestyle changes, help identify barriers to health behaviors, and encourage healthier choices for eating and exercise. In addition, adaptive equipment can be used to enhance function of these individuals. Occupational therapists can also be involved in the selection of equipment and can play a role in advocating for resources that meet the needs of patients. In addition, occupational therapists can be involved in training other staff members on appropriate use of the equipment. In addition, occupational therapists are uniquely qualified to address accessibility issues. Physical barriers in health care facilities and the public can be incorporated into accessibility assessments performed by occupational therapists. Social and environmental factors is an area that occupational therapists are trained to recognize and address. The results of this study suggest that further attention to obesity in occupational therapy literature, research and practice is necessary.



## Chapter 6: Purpose, Results, and Recommendations

### *Purpose*

The purpose of this study was to examine the current status of occupational therapy in relation to the condition of obesity. Attitudes of occupational therapists toward the condition of obesity were explored as were the facilitators and barriers they encounter during therapeutic intervention. It also investigated whether demographic and facility factors could have an impact on staff attitudes. This research was intended to encourage occupational therapists to gain a better understanding of the difficulties individuals with obesity encounter, and insight into their personal attitudes toward this condition. Through this research, occupational therapy professionals will become more prepared to apply professional knowledge and values while addressing an issue that has been identified as one of the nation's leading health threats.

### *Results*

Although most current occupational therapy treatment of clients with obesity is as a secondary condition, the results of this study indicate that obesity is a condition that a majority of occupational therapy practitioners encounter. As only 12.5% of participants have received formal education on obesity and only 16% have receive continuing education on obesity, enhancing the knowledge base of occupational therapy practitioners is important. Considering occupational therapy's commitment to therapeutic use of self and client centered care, improved attitudes towards individuals with obesity would be ideal. In addition, it is important that the barriers to practice be addressed so that quality of care can be improved. Staff attitudes are one of many barriers to practice for clients with obesity. Although demographic and facility factors were not related to therapist attitudes, they were listed as barriers to practice. It is important that demographic,

facility, and attitude barriers be addressed to improve quality of care for individuals with obesity.

The field of occupational therapy is compatible with the needs of this population as the barriers to practice are factors that can be addressed by occupational therapy. With the trend of the profession to address wellness issues, it is important that the role of occupational therapy in the management of obesity be explored. There is potential for occupational therapy involvement with the treatment of obesity on various levels. The results of this study have implications for occupational therapy practice as the barriers to practice for individuals with obesity should be addressed by our profession. Staff awareness of obesity and training in techniques is a necessary consideration. Occupational therapy can bring a unique perspective to a team approach of obesity management. Because of this, the potential roles of the profession should be further explored through continued research.

#### *Further Research*

Further research regarding the condition of obesity is needed in the occupational therapy literature. Research could explore the functional implications of obesity and its impact on occupational therapy practice. The impact of obesity on occupational therapists working in different fields could also be explored in further research. Occupational therapy programs focusing on lifestyle redesign could be researched to promote evidence-based practice for this condition. In addition the specific needs of these clients in relation to accessibility issues and equipment needs can be explored as well as more detailed studies of facility environment. The role of occupational therapy in addressing childhood obesity is also a potential area of further research.

### *Conclusion*

The rising rates of obesity will have an impact on the profession of occupational therapy. It is important that therapists understand the impact that obesity has on treatment and gain insight to the needs of these clients. As occupational therapists increase contact with individuals with obesity, it is important that they apply the basic values of the profession to this population. The field of occupational therapy must also explore its role in the treatment of obesity, eliminate barriers to care, and develop a research base for interventions.

Appendix A: Human Subjects Research Proposal

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FOR  
HUMAN SUBJECT RESEARCH

COVER PAGE

Investigators: Karen Leemhuis, Dr. Cozzolino OTR

Department: Occupational Therapy

Telephone: Dr Cozzolino (607) 274-3618 Karen Leemhuis(814) 450-4960  
(Campus) (Home)

Project Title: Obesity, Stigma, and Occupational Therapy

**Abstract:** (Limit to space provided) The purpose of the proposed study is to identify the attitudes of occupational therapists towards individuals with obesity and the barriers they may face through therapeutic intervention. A demographic questionnaire and the Attitudes Toward Obese Persons Scale will be distributed and analyzed as a means to enhance understanding of these factors. This information will increase knowledge of the hypothesized stigma toward obesity among occupational therapists and give insight into personal attitudes toward this condition. Although individuals with obesity tend to experience various limitations in function that could be addressed by occupational therapy, very little can be found in the occupational therapy literature to guide treatment. As occupational therapists increase contact with individuals with obesity, it is important that the basic values of the profession are applied. By gaining insight into these attitudes, occupational therapists will be able to address any biases to improve therapy for individuals with obesity. A randomized list of occupational therapy professionals will be obtained through the AOTA and a mail survey will be distributed to the participants. Data analysis will include descriptive and inferential statistics using SPSS. The study will commence upon authorization from the IRB will data collection to be performed October-January and analysis of data to be completed in March.

Proposed Date of Implementation: November 2005

Karen Leemhuis B.S. OTS, Dr. Melinda Cozzolino OTR

Print or Type Name of Principle Investigator and Faculty Advisor

---

Signature (Use blue ink) Principal Investigator and Faculty Advisor

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FOR  
HUMAN SUBJECT RESEARCH

CHECKLIST

Project Title: Obesity, Stigma, and Occupational Therapy

Investigators: Karen Leemhuis OTS, Dr. Melinda Cozzolino OTR

<u>Investigator Use</u>	<u>HSR Use Only</u>	<u>Items for Checklist</u>
<u>X</u>	_____	1. General information
<u>X</u>	_____	2. Related experience of investigator(s)
<u>X</u>	_____	3. Benefits of the study
<u>X</u>	_____	4. Description of subjects
<u>X</u>	_____	5. Description of Subject Participation
<u>X</u>	_____	6. Description of ethical issues/risks of participation
<u>X</u>	_____	7. Description of recruitment of subjects
<u>X</u>	_____	8. Description of how anonymity/confidentiality will be maintained.
<u>X</u>	_____	9. Debriefing statement
<u>X</u>	_____	10. Compensatory follow-up
<u>X</u>	_____	11. Appendix A- Recruitment Statement
<u>X</u>	_____	12. Appendix B- Informed Consent Form (or tear-off Cover Page for anonymous paper and pen/pencil surveys)
<u>NA</u>	_____	13. Appendix C- Debriefing Statement
<u>X</u>	_____	14. Appendix D- Survey Instruments
<u>NA</u>	_____	15. Glossary to questionnaires, etc.

Items 1-8, 11, and 12 must be addressed and included in the proposal. Items 9, 10, and 13-15 should also be checked if they are appropriate- indicate "NA" if not appropriate. This should be the second page of the proposal.

## Human Subject Research Proposal

### Obesity, Stigma, and Occupational Therapy

#### 1. General Information about the Study

a) Funds for the proposed research project will be provided by the graduate occupational therapy department at Ithaca College. Anticipated expenses include the cost of purchasing a list of mailing addresses from AOTA, duplicating survey instruments and postage.

b) The survey will be distributed through mail and take place at their place of employment.

c) The primary researcher will begin the study upon approval from the IRB and the Ithaca College Occupational Therapy Department. The thesis project will begin in November 2005 and end in March 2006.

d) The results of this study will be reported in the Master's thesis of the primary researcher. Upon completion of this thesis project, the primary researcher will seek publication of the article in a professional occupational therapy journal.

#### 2. Related Experience of the Researcher(s) and Faculty Advisor(s)

The primary researcher in this study has completed the required research classes in the curriculum of the occupational therapy department at Ithaca College including *Research Methods* and *Biostatistics*. The primary advisor, Dr. Melinda Cozzolino is the current chair of the occupational therapy graduate program. She has been a principal investigator of a funded HRSA grant.

#### 3. Benefits of the study

The benefits of this proposed study for the participant includes the opportunity to gain insight into personal attitudes with the potential for growth in applying the basic values of the profession to an emerging area of practice. The profession of occupational therapy will benefit by gaining an understanding of the hypothesized stigma toward individuals with obesity and the barriers that occupational therapist face in applying the basic values of the profession to this population. As obesity has been identified as one of the top ten health indicators in Healthy People 2010, this information would increase the profession's competence in addressing a nationally recognized health threat. Ultimately, any existing bias could be addressed in hopes that occupational therapy services for individuals with obesity could improve.

#### 4. Description of Subjects

a) The study will include approximately 200 subjects.

b) Subjects will include occupational therapy professionals with membership in the American Occupational Therapy Association. Subjects will be 18 years of age or older.

#### 5. Description of Subject Participation

a) Individual packets will be sent to each subject's institution. The packet will include a cover letter, which also serves as an informed consent form, a three page survey, and an addressed envelope. Participants will be asked to read the cover letter/ consent form (Appendix A) and keep it for their records. Then the subjects will be asked to complete the demographic survey (Appendix B), and the Attitudes Towards Obese Persons Scale (Appendix C) which should take less than 10 minutes. The survey questions pertain to demographics, current practices and barriers, and attitudes towards obesity.

b) After completing the survey, the participants will place the survey in an addressed, stamped envelope and return the survey to Ithaca College.

c) The results of this study will be compiled and reported using charts and narrative descriptions. Descriptive and correlational statistics will be used to find relationships between demographic information and attitudes toward obesity. The results will be compiled and reported in the thesis paper.

## 6. Ethical Issues- Description

a) There are no risks of physical harm to participants of this study. A participant may experience mild discomfort as a result of reporting sensitive demographic data and encountering personal attitudes.

## 7. Recruitment of Subjects

a) In order to recruit participants, the researcher will purchase a randomized member mailing list from the American Occupational Therapy Association. The list will contain names and addresses of practicing registered occupational therapists and occupational therapy assistants. The packet will contain a tear off consent form, a survey, and a pre-addressed, stamped envelope that includes the participants randomized code number. The Dillman format will then be utilized to ensure the highest return rate. This method includes sending a set of reminder post cards (Appendix D) to all participants who have not returned the survey after two weeks. Two weeks after the postcards are sent, a second packet containing the cover letter and survey will be sent to all participants who still have not responded. A coding system created by the research assistant will be used to track returned surveys. Subjects will be informed that participation in the study is optional.

b) Participant will receive no incentive in exchange for participation in this study.

## 8. Confidentiality/ Anonymity of Responses

a) Confidentiality of the participants will be protected throughout the study. The participants are not asked to give their name or social security number on the survey. Envelopes containing the returned surveys will not have a return address. All data will be kept in a locked cabinet with only the researcher and thesis committee allowed access. The research assistant will use a numeric coding system to track all returned survey. Each participant will receive a random code number connected to his or her mailing address. The assistant will place the random code number *only* on the preaddressed envelope. Participants will return the survey to the research assistant who will document all codes, open the envelope, and give the non-coded surveys to the researcher. The researcher will have no knowledge of the coding system and the research assistant will destroy all coding and addresses at the end of the study.

9. Debriefing

- a) A debriefing statement is not required for this study.

10. Compensatory Follow-up

It is anticipated that any anxiety experienced by participants as a result of participation in this study will not require compensatory follow-up.



### *Recruitment Statement*

Hello!

My name is Karen Leemhuis and I am currently a graduate occupational therapy student at Ithaca College. I am asking you to participate in a research study I am conducting in order to fulfill the requirements for my master's degree in occupational therapy from Ithaca College. This information sheet will explain the study purpose, participation requirements, research procedures, confidentiality, and anonymity.

**Purpose:** This study is investigating the attitudes of occupational therapy professionals towards obesity and the barriers they may face during therapeutic intervention. This research will encourage occupational therapists to gain a better understanding of the difficulties individuals with obesity encounter and insight into their personal attitudes toward this condition. Through this research, occupational therapy professionals will become more prepared to apply professional knowledge and values while addressing an issue that has been identified as one of the nation's leading health threats.

**Participation Requirements and Information:** If you are a registered occupational therapist or certified occupational therapy assistant, over the age of 18, and currently practicing, you are eligible for this study. You will be asked to complete a three page survey that should take approximately 10 minutes. The survey consists of questions and statements that pertain to the following:

- 1) Demographic information
- 2) Perceived barriers
- 3) The Attitudes Towards Obese Persons Scale

**YOUR COMPLETION AND RETURNING OF THIS SURVEY SERVES AS INFORMED CONSENT. PLEASE SAVE THIS COVER LETTER FOR YOUR RECORDS.**

You CAN refuse to answer any of the questions in the survey or withdraw your participation at any time.

**Procedures:** Please read the directions and complete the survey accordingly. After completion, place and mail the survey in the addressed, stamped envelope contained in this packet.

**Anonymity and Confidentiality:** In order to preserve anonymity and confidentiality, participant names and institutions are not recorded on the survey. Each participant will receive a random code for data analysis. In addition, all returned surveys will be kept in a locked filing cabinet with access limited to the researcher and members of the thesis committee.

**Contact Information:** If you have any questions or would like to receive a copy of the study results please contact me:

Karen Leemhuis [kleemhu1@ithaca.edu](mailto:kleemhu1@ithaca.edu)

Dr. Mindy Cozzolino [Mcozzoli@ithaca.edu](mailto:Mcozzoli@ithaca.edu) (607) 274-3618

*Survey Instruments*

## Demographic Information

Please complete the following survey by circling the appropriate response or indicating the appropriate response on the lines provided.

1) What is your professional designation?

- a) COTA
- b) OTR
- c) Other (please specify) \_\_\_\_\_

2) What is your highest level of education completed?

- a) associate degree
- b) bachelors degree
- c) masters degree
- d) doctorate
- e) Other (please specify) \_\_\_\_\_

3) What is your gender?

- a) Male
- b) Female

4) How many years have you been practicing occupational therapy? \_\_\_\_\_

5) How would you classify your primary work setting?

- a) inpatient hospital
- b) outpatient
- c) school
- d) community agency
- e) private practice
- f) residential program
- g) nursing home
- h) Other (please specify) \_\_\_\_\_

6) What is the primary type of diagnosis on your caseload?

- a) mental health
- b) physical disabilities
- c) developmental disabilities
- d) Other (please specify) \_\_\_\_\_

7) What is the primary population that you work with?

- a) Pediatrics
- b) Adults
- c) Other (please specify) \_\_\_\_\_

8) What type of environment do you live in?

- a) urban (over 50,000)
- b) rural (under 50,000)

9) What is your age in years? \_\_\_\_\_

10) What is your height in inches? \_\_\_\_\_

11) What is your weight in pounds? \_\_\_\_\_

12) How would you classify yourself?

- a) underweight
- b) average
- c) overweight
- d) obese
- e) severely obese

11

Clinical experience with obesity

For the following questions obesity is defined as an excessive accumulation of fat in the body. Obesity is considered as a body mass index (body weight over the square of the height) over 30 kg/m<sup>2</sup>.

Racette, S.B., Deusinger, S.S., & Deusinger, R.H. (2003, March 1). Obesity: Overview of Prevalence, Etiology, and Treatment. *Physical Therapy*. 1-9.

13) Does your caseload include clients with a primary diagnosis of obesity?

a) Yes

b) No

14) Does your caseload include clients with a secondary diagnosis of obesity?

a) Yes

b) No

15) Have you ever received formal education regarding obesity?

a) Yes

b) No

16) Have you ever had continuing education regarding obesity?

a) Yes

b) No

17) Have you ever heard disparaging statements from health care professionals regarding a client's weight in the work place?

a) Yes

b) No

Rate your agreement with the following statements

18) I believe that occupational therapy interventions can be effective for individuals with obesity

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

19) My facility provides access to equipment designed to accommodate individuals with obesity (i.e. large gowns, blood pressure cuffs, Hovermatts, oversized wheelchairs, walkers, beds, etc.)

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

20) I feel comfortable with my ability to assist with transfers for patients with obesity.

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

21) There is adequate staff available at my facility to perform transfers safely.

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

22) My place of employment provides a positive environment to treat individuals with obesity.

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

23) Please list factors that you perceive as facilitators or barriers to treatment of clients with obesity.

Facilitators \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Barriers \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please put any additional comments in the space provided (you may use the back of the page if necessary):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Attitudes Toward Obese Persons Scale

Please place a check in the appropriate box for each statement to indicate how much you agree or disagree with it according to the scale below.

**Key:**

-3	-2	-1	+1	+2	+3
Strongly	moderately	slightly	slightly	moderately	strongly
Disagree	disagree	disagree	agree	agree	agree

	-3	-2	-1	+1	+2	+3
1. Obese people are as happy as non-obese people.						
2. Most obese people feel that they are not as good as other people.						
3. Most obese people are more self-conscious than other people.						
4. Obese workers cannot be as successful as other workers.						
5. Most non-obese people would not want to marry anyone who is obese.						
6. Severely obese people are usually untidy.						
7. Obese people are usually sociable.						
8. Most obese people are not dissatisfied with themselves.						
9. Obese people are just as self-confident as other people.						
10. Most people feel uncomfortable when they associate with obese people.						
11. Obese people are often less aggressive than non-obese people.						
12. Most obese people have different personalities than non-obese people.						
13. Very few obese people are ashamed of their weight.						
14. Most obese people resent normal weight people.						
15. Obese people are more emotional than non-obese people.						
16. Obese people should not expect to lead normal lives.						
17. Obese people are just as healthy as non-obese people.						
18. Obese people are just as sexually attractive as non-obese people.						
19. Obese people tend to have family problems.						
20. One of the worst things that could happen to a person would be for him to become obese.						

*Follow-up Postcard Content*

November 15, 2005

Two weeks ago, you were mailed a survey about occupational therapy and working with individuals with obesity. You are one of a small number of occupational therapists randomly chosen for this study and your response is vitally important. Please return the survey as soon as possible. If you have lost your copy of the survey and would like a new one, please email me at [kleemhu1@ithaca.edu](mailto:kleemhu1@ithaca.edu). I would like to take this opportunity to thank you for your participation in this research project.

Sincerely,

Karen Leemhuis B.S.

O



# ITHACA

OFFICE OF THE PROVOST AND VICE PRESIDENT  
FOR ACADEMIC AFFAIRS

October 27, 2005

Karen Leemhuis, Graduate Student  
Department of Occupational Therapy  
School of Health Sciences and Human Performance

**RE: Obesity, Stigma, and Occupational Therapy**

The All-College Review Board for Human Subjects Research (HSR) has received your request for review of the responses to stipulations made on October 6, 2005. The proposal has been reviewed and the Board authorizes you to begin the study. This approval will remain in effect for a period of one year from the date of authorization.

The HSR Board, however, did have the following consultative comments:

You should pilot the demographic survey and provide a definition of obesity on the survey for reference by the subjects. In addition, you should provide better spacing on the obesity survey or a space in front of the number for use by the subject. Finally, you should send a second packet to non-responders of the first run and then the reminder postcards. It was also noted that in the future, if you are going to significantly change the format of the survey, there should be an explanation included.

After you have finished the project, please complete the enclosed Notice-of-Completion Form and return it to my office for our files.

Best wishes for a successful study.

Sincerely,



Garry L. Brodhead, Associate Provost  
All-College Review Board for Human Subjects Research

/mt

Enclosure

c: Dr. Cozzolino

Ref: HSR 0905-13

Ithaca College / 350 Job Hall / Ithaca, New York 14850-7012  
607-274-3113 / Fax: 607-274-3064 / www.ithaca.edu

**Appendix B: Scoring Instructions for Attitudes Toward Obese Persons Scale**

1. Calculate the value of each item.
  - a. Items 1, 7-9, 13, 17, 18 are assigned the value of the response
  - b. Multiply the response to items 2-6, 10-12, 14-16, 19 and 20 by -1
2. Add the values calculated above for items 1-20.
3. Add 60 to this total to calculate the ATOP score.
4. Higher scores indicate a more positive attitude.

## Appendix C. Chi Square for Demographic Factors.

Table 3

*Chi-Square for Demographic Factors.*

		<i>ATOP Score</i>			Total
		0-60	61-80	81-120	
Professional Designation	COTA	4	9	2	15
	OTR	20	60	20	100
	Other	0	1	0	1
Highest Degree	Associates	2	7	0	9
	Bachelors	17	35	13	65
	Advanced Degree	5	28	9	42
Gender	Male	1	4	2	7
	Female	23	66	20	109
Experience	0-5	5	10	9	24
	6-10 years	6	18	2	26
	11-20 years	8	22	6	36
	Over 20 years	5	19	5	29
Living Environment	Urban	14	44	17	75
	Rural	10	25	4	39
Age	20-33 years	7	17	8	32
	34-43 years	7	20	8	35
	44-53 years	6	20	3	29
	54-70 years	4	13	3	20

		0-60	61-80	81-120	Total
BMI	BMI 0-24.9	14	40	10	64
	BMI 25-29.9	6	14	5	25
	BMI 30-100	4	15	6	25
Self-Perception	Underweight	0	2	0	2
	Average	15	37	14	66
	Overweight	8	29	5	42
	Obese	1	2	3	6
Formal Education on obesity	Yes	4	7	5	16
	No	20	62	17	99
Continuing education on obesity	Continuing education- Yes	4	11	5	20
	Continuing education-No	20	58	17	95

## Appendix D: Chi Square for Facility Factors

Table 4

*Chi-Square for Facility Factors*

		ATOP Score			Total
		0-60	61-80	81-120	
Work Setting	Inpatient	1	8	4	13
	Outpatient	5	6	3	14
	School	6	16	4	26
	Community Agency	1	3	1	5
	Private Practice	0	7	2	9
	Nursing home	4	13	4	21
	Other	5	13	3	21
Patient diagnoses	Mental health	0	1	2	3
	Physical Disabilities	14	33	11	58
	Developmental Disabilities	8	21	7	36
	Other	1	3	1	5
Patient population	Pediatric	8	29	7	44
	Adult	16	40	14	62
Primary diagnosis of obesity	Yes	6	13	7	26
	No	18	55	15	88
Secondary diagnosis of obesity	Yes	12	38	12	62
	No	12	30	10	52
Disparaging statements	Yes	17	46	18	81
	No	6	23	4	33

		0-60	61-80	80-120	Total
Adequate equipment	Strongly Agree	6	11	3	20
	Agree	6	23	11	40
	Neutral	7	21	5	33
	Disagree	4	11	1	16
Comfort with transfers	Strongly Agree	2	8	4	14
	Agree	8	31	9	48
	Neutral	9	10	5	24
	Disagree	5	15	3	23
Adequate staffing	Strongly Agree	4	10	6	20
	Agree	8	30	9	47
	Neutral	7	16	2	25
	Disagree	4	7	4	15
Positive work environment	Strongly Agree	1	8	7	16
	Agree	12	33	10	55
	Neutral	8	19	3	30
	Disagree	3	4	1	8
Believe OT is effective	Strongly Agree	7	28	11	46
	Agree	15	33	7	55
	Neutral	2	7	4	13
	Disagree	0	2	0	2

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