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The Stigma of Obesity : Beliefs About and Attitudes Toward Fat/Obese Persons

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ABSTRACT

An abstract of the thesis of Sally Jean Clute for the Master of Science in Sociology presented May 7, 1998.

Title: The Stigma of Obesity: Beliefs About and Attitudes Toward Fat/Obese Persons

This research explores the relationship between beliefs about and attitudes toward fat/obese persons, specifically in regard to issues of attribution and perceived responsibility for the physical condition. The purpose of the research is to assess the extent to which fat/obese persons are derogated, given whether or not they are perceived to be held responsible for their fatness/obesity. It utilizes attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967; Weiner, 1986), in particular, internal locus of control and issues of consensus and distinctiveness (Kelley, 1967) and controllability (Weiner, 1986). The main hypothesis is that fat/obese people will be viewed more positively if their fatness/obesity is understood as outside of their control. A questionnaire was administered to Portland State University undergraduate students (n=215). Allison's (1991) Beliefs About Obese Persons and Attitudes Toward Obese Persons scales were used on the instrument, along with silhouette figures

(Stunkard, Sorensen, and Schulsinger, 1983), exploratory questions, and demographic variables. Two variations of the questionnaire were randomly administered, one with the term "obese" in all questions and the other with the term "fat." A second hypothesis proposed that there would be a difference in outcome between the two versions of the questionnaire, depending on the body size term used. Other hypotheses explored figure assessment differences and demographic variable relationships to scores on the beliefs and attitudes scales.

The first hypothesis was analyzed with bivariate correlation testing and was supported for the "fat" variation, but not the "obese" variation of the questionnaire. For the second and subsequent hypotheses, one-way analysis of variance testing was performed. Analysis of the second hypothesis showed a difference in perception of the terms "fat" and "obese" with respect to several of the variables. Differences were also found between male and female ideal body type figure assessments and between "fat" and "obese" body size estimations.

Further studies to investigate effects of age, ethnic background, and body size variables are suggested.

THE STIGMA OF OBESITY:

BELIEFS ABOUT AND ATTITUDES TOWARD FAT/OBESE PERSONS

by

SALLY JEAN CLUTE

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INTRODUCTION

Themes of deviance from group culture are imbedded in the social stigma related to being fat/obese in our society. Fatness/obesity is a visible negative attribute and research shows that it is met openly with disapproval, hostility, and discrimination. (Crandall, 1995; Harris, 1990; Young and Powell, 1985) Individuals within a society tend to base their attitudes on the standards of the group culture; fat/obese people in Western society are stigmatized because they do not adhere to the dominant group values and because they deviate from the modern cultural norm of thinness. Since their size is so visible, fat/obese people are seen as consciously offending society's expectations and so deserving of being socially stigmatized. While the stigma of fatness/obesity does affect both genders, women are by far more strongly affected in this society. (Millman, 1980; Wolf, 1991)

In this research, the relationship between beliefs about and attitudes toward fat/obese persons is explored, specifically in regard to issues of causal attribution and perceived responsibility for the fatness/obesity. In Chapter I, the history of body size diversity is reviewed, along with a feminist perspective on fat oppression, and research on fat discrimination. The main hypothesis is that fat/obese people will be viewed more positively if their fatness/obesity is viewed as outside of their control. In Chapter II, several components of attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967; Weiner, 1986) are

applied to this study.

The research instrument utilizes Allison's (1991) two scales focusing on stereotypical perceptions of obese people. The Beliefs About Obese Persons (BAOP) scale measures the degree to which subjects believe that obesity is or is not within the control of the obese person. The Attitudes Toward Obese Persons (ATOP) scale measures subjects' attitudes toward obese persons. In addition, body size assessment figures (Stunkard, 1983) and demographic questions are utilized. Characteristics of the sample and methodology are discussed in Chapter III. Data analysis is presented in Chapter IV and discussion is offered in Chapter V.

CHAPTER I

LITERATURE REVIEW

In this chapter, the history of fatness/obesity, a feminist perspective on fat, and research on discrimination against fat/obese persons are addressed.

BACKGROUND

Human females developed over many millions of years with a weight distribution designed to carry on the human species. They gave birth to the future and nourished it with their bodies. The early human males would likely have noted that fat women with their visible energy resources were most desirable as mates. Schroeder (1992) writes that "the selection of amply endowed females (by early man) as producers of offspring would of course lead to the propensity for fatness being increasingly more prevalent in the genetic make-up of females." (Schroeder, 1992:14) Women and men in prehistoric times were most likely to survive if they had enough fat to get them through extended periods of famine. If and when early humans took a long time to get back home from a hunt, the women who were back at base camp with babies and children were much more likely to survive if they were fat.

While the desirability of fat women in prehistoric times cannot be

proven, there is hard evidence of it in the shape of small ancient stone figures. These fertility symbols or goddess totems are of extremely ample, abundant women. They have large buttocks, big hips, a rotund abdomen and huge breasts. The most famous stone figure is the limestone "Venus of Willendorf" (also called the "Earth Mother of Willendorf") which was found near Willendorf, Austria. Modern historians interpret her features as symbols of creativity, fertility, nurturance, birth, and bounty. (Erdman, 1996) Statues such as this were also common among the prehistoric Greeks, Babylonians, and Egyptians. (Schroeder, 1992) Anthropological information about ancient humans leads to the concept that their highest priority would have been to protect the women, and that the human females were most likely treated with reverence since life emerged from their bodies. Woman was likely the principal deity of prehistoric peoples. However, writes Schroeder (1992), "As mankind's numbers multiplied and it appeared as if the species was here to stay, women become less valued. Social structures became more patriarchal and religions became more oriented toward males and masculine values." (Schroeder, 1992:12)

Beller (1977) stresses that in many cross-cultural and historical settings female fleshiness and fatness from birth onward are facts of biological life which appear to have been programmed into the species, long ago, by nature. Millions of years of evolution have gone into creating women who have more of a tendency to be fat than men. "It is a legacy of distant ancestors that is carried in

their genes. In spite of this natural tendency, however, modern fashion has arbitrarily dictated that women must be thin to be desirable." (Schroeder, 1992:17)

The "ideal shape" for women appears to have vacillated considerably throughout the history of Western civilization. Naomi Wolf (1991) contends that in Western culture various distributions of sexual fat were emphasized according to fashion: big, ripe bellies from the 15th to the 17th centuries, plump faces and shoulders in the early 19th century, and progressively generous dimpled buttocks and thighs until the 20th century.

According to Schroeder (1992), until the 20th century, thin was never "in." Far more than simply lacking in vitality and eroticism, thinness was a sign of frailty or illness. Before that time, doctors were advising plumpness to improve the health of women and their personalities. Thin women were said by some neurologists to be invariably querulous and discontented. Thinness was usually seen as a sign of poor health or at least a weak constitution. Fatness, conversely, was an indication of good health, contentment and happiness. According to Johnson (1995), in the 1800s, abundant flesh was a sign of success, prosperity, and a clean, temperate life. Thinness was suspect -- evidence of a nervous temperament. Even doctors regarded abundant weight and a hearty appetite as signs of good health. Erdman (1996) states that in the late 1800s, doctors advocated more flesh; they thought that a heavier body was seen as

better able to defend itself against disease.

In the late 1800s, both in Europe and America, heavier women were admired. During that time, Lillian Russell, weighing over 200 pounds, was known as "The American Beauty." She was the epitome of female desirability. The standard figure measurements in 1902 were 36-26-43 (Schroeder, 1992) and the thin woman was besieged with pills, creams, and potions to encourage the ample look. (Erdman, 1996)

According to Johnson (1995), fatness was not generally regarded as an abnormality until the 1920s. The 1920s seem to have been a time of the repudiation of all that had previously passed for femininity. Shapeliness was out. The bust and the hips were flattened with undergarments and the fashionable shape was straight down and flat. The "flapper" look demanded a body with few protrusions.

Different authors on the subject of body size and shape have different views on the emergence of the thin body shape in the early years of the 20th century:

Schroeder (1992) suggests that it was due to the suffragette movement which started before the turn of the century:

> By 1908 the movement had gathered considerable strength and was expanding into a more general concept of women's liberation. Apparently, to many women, throwing off the bonds of tradition including throwing off their traditional physical forms as well. If men could be bosomless and hipless, so could they. Apparently, women felt, and understandably so, that they had to look manly to

> be taken seriously enough to be allowed by men to enter their world of work. (Schroeder, 1992:53)

Bordo (1993) hypothesizes that at the end of the 19th century, corpulence went out of middle-class vogue because:

> Social power had come to be less dependent on the sheer accumulation of material wealth and more connected to the ability to control and manage the labor and resources of others. At the same time, excess body weight came to be seen as reflecting moral or personal inadequacy, or lack of will. These associations are possible only in a culture of overabundance -- that is, in a society in which those who control the production of "culture" have more than enough to eat. The moral requirement to diet depends on the material preconditions that make the *choice* to diet an option and the possibility of personal "excess" a reality. (Bordo, 1993:192)

Naomi Wolf (1991) theorizes that the absolute negation of the natural female state seems to have developed with the passing into law of women's emancipation. She states that dieting and thinness began to be female preoccupations when Western women received the vote in the early 1900s.

By the 1930s the thinness craze had moderated. According to Seid (1989), in a nation gripped by the Depression and then war, with threats of food shortages leading to rationing, overweight was hardly considered a serious problem. *Vogue* magazine, she notes, even ran an article on "how not to be so thin."

In the 1940s the influence of World War II was noticeable in the fashion of body shape. Women worked in the trades for the first time since the start of the Industrial Revolution. They were able to wear more comfortable, less

binding clothing. A physically strong woman was important for the war effort and the war-time economy. Also during that time, full-bodied pin-up girls and "sweater girls" became the fashion.

The 1950s were a time of going back to the full-bodied look for the American woman. Naomi Wolf (1991) asserts that:

> In the regressive 1950s, women's natural fullness could be briefly enjoyed once more because their minds were occupied in domestic seclusion. But when women came en masse into male spheres, that pleasure had to be overridden by an urgent social expedient that would make women's bodies into the prisons that their homes no longer were. (Wolf, 1991:184)

The current cultural value of thinness in women is fairly recent. In the 1950s, advertisements were touting weight-gain products, which were an inducement for women to put on weight and curves to present themselves more acceptably in the well-rounded body image of the day. To be too thin at that time was culturally unacceptable, so to add pounds and curves was the socially vital thing for women to do. Marilyn Monroe in the fifties was a classic example of the re-emergence of the "fuller" figure.

The current obsession with thinness in Western society began in earnest in the 1960s. This coincides with the second wave of feminism. The "war on fat" was a way to distract women from their battle for equality. Wolf (1991) asserts that as feminism gained a foothold during this second wave, "an ideology that makes women feel 'worth less' was urgently needed to counteract the way feminism had begun to make us feel worth more." (Wolf, 1991:18) She asserts

that "in a stunning move, an entire replacement culture was developed by naming a 'problem' where it had scarcely existed before, centering it on women's natural state, and elevating it to *the* existential female dilemma" as a way to distract women. (Wolf, 1991:67) According to Wolf (1991), "The great weight shift must be understood as one of the major historical developments of the century, a direct solution to the dangers posed by the women's movement and economic and reproductive freedom." (Wolf, 1991:187)

Wolf (1991) gives an example of the change in the "ideal" body weight in the twenty years after the start of the second wave of the women's movement: the average weight of Playboy Playmates dropped from 11 percent below the national average in 1970 to 17 percent below it in eight years.

Twiggy arrived on the fashion scene in 1966; she was 5'7", weighed 97 pounds, and had measurements of 31-22-32. Naomi Wolf (1991) asserts that Twiggy was a double-edged beauty myth: her lack of fat suggested to other women the "freedom from the constraint of reproduction (since female fat is categorically understood by the subconscious as fertile sexuality), while reassuring men with her suggestion of female weakness, asexuality, and hunger." (Wolf, 1991:184) Twiggy came across as undernurtured and susceptible to being overpowered by a strong wind. Her expression was the daze of the besieged. Wolf (1991) writes "What better symbol to reassure an establishment faced with women who were soon to march tens of thousands strong down Fifth Avenue?"

(Wolf, 1991:185)

PRESENT DAY ISSUES

A Feminist Perspective

Feminist theory, in particular radical feminism, asserts that inequality is the result of social organization, not of biology. Radical feminists assert that patriarchy is all-pervasive in Western culture and its social institutions, and that overt violence against women, i.e. rape and domestic abuse, and also more subtle means of control, i.e. beauty standards, are symptoms of the ills of patriarchy. (Farganis, 1996)

Feminist theory with regard to fat oppression is articulated most clearly by Naomi Wolf (1991). At the heart of fat discrimination in Western culture is the message that body fat is wrong, and therefore women's bodies are wrong. Wolf (1991) contends that the question "is not about whose body is fat, but whose body is wrong." (Wolf, 1991:95) This comes down to more than physical body size and shape. Wolf (1991) concludes that "If women's bodies are and have always been wrong whereas men's are right, then women are wrong and men are right." (Wolf, 1991:187)

Shaming women about their natural body composition is a major intent of a patriarchal society that will use whatever means necessary to control women.

It's not that society really cares that much about women's appearance. What matters is that women in the society remain acquiescent when others tell them what they can and cannot be and have. Wolf (1991) describes the aim of the beauty myth as "rigid female thought" and contends that "a cultural fixation on female thinness is not an obsession about female beauty but an obsession about female obedience." (Wolf, 1991:187)

Feminism is battered on all sides by the "tyranny of slenderness" (Chernin, 1981). Wolf (1991) notes that "Where feminism taught women to put a higher value on ourselves, hunger teaches us how to erode our self-esteem. If a woman can be made to say, 'I hate my fat thighs,' it is a way she has been made to hate femaleness." (Wolf, 1991:197) Female fat is a topic of great public obsession. Women's bodies are indeed not their own when they are besieged by messages of shame and guilt from an image-dominated culture. Women feel guilty about female fat, because they tacitly recognize that under the myth, women's bodies are not their own but society's. Thinness is not private; hunger is a social concession demanded by the community.

Brown (1989) looks at overt and covert fat-oppressive attitudes, and notes that fat oppression is particularly aimed at women, "being one of the various ways in which patriarchal oppression is insinuated into women's lives." (Brown, 1989:20) Fat oppression, the stigmatizing of fatness, carries the message that women are forbidden to take up space or resources. It is based in the patriarchal

and misogynist cultural views of our society. Fat women, by their very presence, violate fundamental norms of a misogynist society that denies nurturance, space, power, and visibility to women. (Brown, 1989) Fat oppression effectively serves to divide women. Fat-oppressive attitudes in women are both turned inward to themselves and extemally to other women. Women have learned to measure their worth by the numbers on the bathroom scale. By condemning themselves and other women who have a fat body shape, they are colluding with the cultural hatred of women.

Looking at fat discrimination from a conflict view, Goodman (1995) claims that "weight is really a framework for issues like power, entitlement, control, conformity, and the ways in which society grants or withholds approval, love, sex, social status, and opportunities." (Goodman, 1995:14) The size-acceptance movement, which is trying to disturb the status-quo, is met with great resistance. She maintains that:

> ... weight bigotry is a true form of bigotry ... like racism, it is based on visible cues, i.e., the fat person is discriminated against primarily because of the way she looks. Like anti-Semitism, it defines an entire group of people numbering in the millions within a narrow range of negative characteristics and behaviors. Like sexism, it elevates the status of one group of people at the expense of another. In short, weight prejudice is a new twist on a timeless and ugly pattern of human social dynamics. (Goodman, 1995:7)

Weight discrimination against fat women benefits not only men, but thin women as well, who for all their body anxiety and insecurities, nevertheless

benefit enormously from the restricted culture that rewards them with opportunities because of their size. Goodman (1995) asserts that "... our society cultivates and reinforces a philosophy that thin women *deserve* to live happily ever after." (Goodman, 1995:xv)

Brown (1989) contends that fat oppression influences women to fear feeding and nourishing themselves, thus depriving themselves both of strength and pleasure, even though women in general are responsible for food preparation and service. To be able to eat for physical sustenance and for the pleasure of it is something that most women in America, regardless of their weight, do not feel free to do. Women drain their energy and their checkbooks trying to become the media-glorified "thin ideal." Women shell out millions of dollars each year to the weight loss industry whose ads make them feel guilty for being what and who they naturally are. But women feel such a strong need to be accepted in a thin-obsessed society that they voluntarily put themselves in the hands of the very weight loss establishment that mocks them. Women could put the money they give to this diet industry to much better use, making their own lives and other women's lives more meaningful. Given that women hold such a lower economic position than men in this society, they could be using what financial resources they do have for the further development of strengthening women, not physically wasting away from hunger and emotionally wasting away from internalization of negative fat attitudes. Fat oppression functions as a way to

divide women and also to drain resources and energy from women's lives. (Brown, 1989) Women should not feel the need to compete with each other to be the thinnest; they should pool that energy into strengthening women's standing in society.

As expressed in the Background section above, the shift from natural female form to a socially enforced female thinness is a direct solution to the risks posed by the women's movement, particular women's economic and reproductive freedom. (Wolf, 1991) According to Wolf (1991), the "thin ideal" is not beautiful aesthetically; it is beautiful as a political solution. Stressing the feminist perspective, Wolf (1991) argues that by becoming preoccupied with their looks, women have little time left for truly important things. An unending quest for beauty, she feels, effectively sidetracks women from any pursuit of power.

Goodman (1995) likens the current body size acceptance movement to the early days of feminism. She asserts that fat women must overcome the same cultural obstacle that women as a group had to overcome during the early years of feminism; i.e., "we often have to break our backs to obtain not only the rights and privileges that others take for granted, but also the expectation that we deserve them." (Goodman, 1995:xv)

According to Barron (1989), the stigmatization of fatness in our culture affects the social reality and potential of fat women. She notes that fatness,

often considered the 'fault' of the individual, is shamed and used as a barrier to societal rewards and as a means of rationalizing discriminatory practices. Barron (1989) asserts that this prejudice is more blatantly directed at women, and that women, because they biologically have a larger percent of body fat than men "face far narrower, more prescriptive, more strongly sanctioned norms for fatness." (Barron, 1989:86)

According to Goodman (1995), Western society's obsession with thinness reveals a flawed but obstinate association between a woman's ability to conform to rigid standards of appearance and her femininity. This deflects attention away from women's real accomplishments as human beings and focuses it instead on their physical characteristics.

The sexual politics of the human body are epitomized by our culture's current body size oppression. Bordo (1993) describes the physical body as a site of political struggle, particularly for women, whose lives are often centered on the reproduction and care of others' bodies and the pressured beautification of their own. Society's grip on the female body through fat oppression is a constant, intimate fact of everyday life for women.

American society's gender-specific obsession with thinness targets especially those women whose body shape is outside the strict cultural ideal. Obese women are labeled deviant. They are perceived as not playing by the rules, especially if they do not apologize for their size. Bordo (1993) notes that

in the case of the obese, a possible source of the hostility they inspire may be what others perceive as their defiant rebellion against normalization. The present punitive cultural environment makes people feel free to attack the overweight. Non-obese people may feel that since they struggle to be acceptable and normal-size that they have the right to humiliate and degrade obese people who do not adhere to the rules. Bordo (1993) also notes that preoccupation with body size and shape are not abnormal in a thin-obessed culture. She states that such preoccupation possibly functions as one of the most powerful normalizing mechanisms of this century, "insuring the production of self-monitoring and self-disciplining 'docile bodies' sensitive to any departure from social norms and habituated to self-improvement and self-transformation in the service of those norms." (Bordo, 1993:186)

Goodman (1995) asserts that fat women are defined purely in terms of their weight and other people's prejudice. Negative cultural attitudes keep fat women at a distance from social normalcy and deprive them of their rightful status as full-fledged members of society. She writes that "If a woman is perceived as having consumed too much food, she finds she has committed a social crime. By projecting the image of gluttony onto the large woman exclusively, our society can deny and rationalize its colossal overindulgence in the cult of conspicuous consumption." (Goodman, 1995:46)

Obesity is treated as a violation of sex roles in our society. According to

Millman (1980) fat/obese women are suspected of providing pleasure to their own bodies by feeding and taking care of themselves, rather than engaging in what society views as the more appropriate sex role of stimulating, pleasing, feeding, and nurturing others.

Social evaluation in Western culture depends prominently on weight. For women, the biological norms of a relatively greater proportion of body fat conflict with narrow sexualized norms of acceptance. Women are expected to fit into the current norm of thinness and when they don't, social discrimination can be particularly severe, in terms of public harassment and media ridicule. (Barron, 1984)

"Fat oppression," the fear and hatred of fat people, is an underlying cultural value in our society. People feel free to say to fat people things they would never say to someone regarding their color or physical handicap. Fat oppression has become one of the few "acceptable" prejudices still held by otherwise progressive and aware persons in today's American society. (Schoenfielder & Weiser, 1983)

Weight prejudice is rampant in American society. The denigration of fat people is accepted and condoned. There is a powerful, negative connotation to possessing a fat body size. Fat people are dehumanized with words, a few examples of ones liberally used in our culture are "disgusting," "revolting," and "ugly."

Goodman (1995) asserts that fat women are criticized and condemned because of their high visibility. They are seen not as authentic people living valid lives, but instead as "undisciplined slobs who are not 'PC' (physically correct)." (Goodman, 1995:95) She also asserts that fat women are conscripted by society to carry its collective burdens of self-hatred and fear. Women in this culture are sent emphatic and relentless messages that being thin takes precedence over any other goal. Fat women will find it very difficult to find any mainstream validation of their worth and attractiveness.

Self acceptance can be very hard for people who are fat. Women (and men) internalize American culture's negative ideas about being fat or obese. It can be quite a struggle to let go of these socialized beliefs. (Wiley, 1994) Erdman (1996) writes that it is especially hard work to counter those negative messages and particularly hard for a fat woman to not incorporate others' negative evaluations of her body into her own self-concept.

In regard to success in American culture, Schroeder (1992) writes that men are judged far more by their successes in life than by the shape or fatness of their bodies. A woman, however, can achieve at the very highest levels of her profession and still be expected by society to have a thin and (presumably) beautiful body. If a woman does not have a perfect body, she is often labeled a "failure" in spite of all her other achievements. No matter how successful a fat woman becomes, her weight will be treated as a mark against her.

One way that the current weight prejudice affects American women is that other goals are put off or subjugated to the basic goal of being size-acceptable in this society. In putting forth the arguments for personal body size acceptance, Erdman (1996) states that acceptance can free up energy to put toward other parts of a woman's life. A woman not obsessed with dieting for the approval of society can turn her attention to other life goals. (Erdman, 1996)

Economic and Cultural Issues

From an economic viewpoint, obesity in America is correlated with poverty and is associated with downward mobility. (Stunkard, 1989) Discrimination against fat people most dramatically affects groups already disadvantaged: women and the poor. Being thin in this society is increasingly equated with wealth and class: "Being thin is a kind of inconspicuous consumption that distinguishes the rich at a time when most poor people can more easily afford to be fat than thin." (Millman, 1980:106) People with less money and time find it harder to visit fitness gyms, be involved in sports, or have the time and money necessary to cook high-quality meals.

In terms of economics with regard to cultural and historical relativity, as discussed in the Background section of this chapter, different cultures and times have placed different values on thinness and fatness. People who have struggled to acquire sufficient food have tended to praise fatness more than thinness.

When food is not taken for granted, fatness has often been valued as a sign of success and prestige. In this context, success is equated with beauty. To be successful in acquiring enough food can make one beautifully fat. (Allon, 1973)

In contrast to the prestige of fatness in some societies, people who take economic abundance for granted, as in current Western society, tend to esteem thinness more than fatness. In an abundant society, people can literally afford to worry about "too-muchisms," including overweight. (Allon, 1973)

Effects of the Media on Fat Oppression

In our culture, there is a belief that if a woman can lose weight, her whole life will be wonderful. (Wiley, 1994) Media images contribute strongly to this expectation. The ads insist that by losing weight, a person will become more beautiful and younger-looking, which in turn will lead to greater self-confidence and heightened success in social and work life.

As late as 1904, newspapers and magazines carried many articles on the dangers of being thin along with advertisements for products that helped people gain weight. (Schroeder, 1992) Fat and healthy at that time held a strong positive correlation. A review of magazines such as *Vogue* and *Ladies' Home Journal* from about 1800 to 1900 shows that ads for losing weight were quite rare. Even up to 1950, there were very few articles dealing with weight reduction according to the *Readers' Guide to Periodic Literature*. Between 1937

and 1945, there were fewer than two weight reduction ads per year. Between 1951 and 1953, the number of articles on fatness jumped to 54. Since that time, there has been a progressive increase in articles about fat and weight-loss and particularly ads touting weight-loss products. (Schroeder, 1992) A recent survey of eleven individual mainstream magazines, including *Vogue, Redbook, Time, McCall's*, even *Audubon* and *Modern Maturity*, turned up an astounding 645 pictures of thin women as opposed to 11 of heavy women. (Goodman, 1995)

In the last 20 years, television commercials for weight loss products have increased to nearly 5% of all TV ads -- up from 1% in 1973. (Johnson, 1995) A 1992 television commercial is typical. The commercial opens with a hectic household: kids running about noisily, woman busy in kitchen, and man on the telephone. Woman opens a diet soft drink. Man looks up from the telephone and asks, "Have you lost weight?" All the hectic activity falls away, triumphant music blares in the background, and woman grins as if she could receive no higher compliment. (Wiley, 1994)

The mass media, in particular women's magazines, have contributed to body size discrimination by featuring a myriad number of articles on weight loss and the dreaded stigma of being overweight. The number of diet-related articles rose 70 percent from 1968 to 1972. Articles on dieting in the popular press soared from 60 in the year 1979 to 66 in the *month* of January 1980 alone. By 1983-84, the *Reader's Guide to Periodical Literature* listed 103 articles on

dieting; by 1984, 300 diet books were on the shelves. (Wolf, 1991)

According to Wolf (1991), advertising aimed at women works by lowering their self-esteem. If it flatters their self-esteem, it is not effective. From a marketing viewpoint, the mass media believe they need to promote the concept of women hating their bodies enough to buy diet foods.

In magazines especially, fat women are advised to wear clothing that acts as camouflage and that is 'forgiving' to their flawed bodies, "as if they had committed sins that required absolution." (Goodman, 1995:65)

Looking at the content of advertising from a feminist perspective, Bordo (1993) asks us to consider how representations of men and women eating (for example in contemporary advertisements) exhibit a dualistic pedagogy: whereas women's appetites require containment and control, male appetite indulgence is legitimated and encouraged.

The media, with the rare exception of the new magazines for larger size women, tout only young, thin women. They generally depict fat women (i.e. Roseanne) as humorous, villainous, or maternal. According to Barron (1989), this stigma affects the social reality and occupational potential of fat women.

Effects of the Weight Loss Industry on Fat Oppression

In addition to the mass media, the $33 billion a year diet industry in America is a big "pusher" of their drug of choice -- dieting. Naomi Wolf (1991)

writes that dieting "is a trivializing word for what is, in fact, self-inflicted semi-starvation." (Wolf, 1991:193)

The "supportive" rhetoric of the diet industry masks the obvious: The last thing it wants is for women to get thin once and for all. The accepted figure of people who lose weight only to regain it plus more is 98%, meaning the diet industry market is self-generating and intrinsically expansive. Predicated on the repeated success and then failure of the dieter, the interest in diet strategies, techniques and products seems unlimited. (Wolf, 1991)

Encouraging body hatred is extremely lucrative. The promoters of weight-loss products capitalize on weight prejudice and see the fat woman as a means to their financial gain. The weight-loss industry relies on the genetic/metabolic trap of cyclical weight loss/weight gain for repeat business and increased profits. In order to keep the multi-billion-dollar weight-loss industry afloat, purveyors of diet products exploit and manipulate the insecurities of all women, especially big women. The fat acceptance movement, by promoting body size acceptance, seeks to wean women off cyclic dieting and thus threatens the weight-loss industry. (Goodman, 1995)

In 1951, Louis I. Dublin, the chief statistician and "publicist" for the Metropolitan Life Insurance Company, uttered the infamous phrase, "Obesity is America's No. 1 health problem." He initially developed the "Ideal Weights" chart for Metropolitan in the 1940s. Even though serious flaws have been found

in his studies, by 1960 he had convinced much of the medical profession and the public that being fat was a dangerous threat to good health. This created the atmosphere for entrepreneurs to market anti-fat products and the weight-loss industry took off from there.

According to Schroeder (1992):

> Due to the flood of ads that stress "Get rid of ugly fat and flab" or "Lose weight and be beautiful," the public is similarly convinced that fat is not beautiful. Convince people that losing weight will make them beautiful and they will beat down doors to buy weight-reducing products. Realizing this, the anti-fat companies pound into the public mind the idea that fat is ugly; that it is a four-letter word. The anti-fat industry has relentlessly attempted to brainwash the public into believing that fat people are not nice to be around. The anti-fat companies count on the creation of negative feelings to goad overweight people into buying their products. (Schroeder, 1992:119)

Sixty-five million Americans diet every year, creating this $33 billion a year diet industry. Or to put it the other way around, the weight-loss/diet industry markets their products to the general public, causing 65 million Americans to diet every year to conform to the ads of the diet industry.

Organizations to Combat Fat Oppression

According to the National Association to Advance Fat Acceptance (NAAFA), fat people are "victims of prejudice, stigma, and consequent self-hatred." NAAFA members report that just some of the many problems that fat Americans encounter in daily life are social exclusion, job discrimination, personal shame and low self-esteem, exploitation by commercial interests, and

public ridicule. One of NAAFA's major arguments is that "a person should not have to be thin to deserve the full roster of human rights and privileges, and that self-acceptance and acceptance by others should not be conditional on a person's weight."

The Ample Opportunity program was founded on the belief that "all members of society will benefit from greater size acceptance, that fat phobia is largely an issue of social control of women, and that fat women need not lose weight in order to live a healthy life." (Barron, 1989:80)

Myths

Myths about the physical and emotional health problems of larger people are widespread in our society. Wolf (1991) asserts that media coverage is out of proportion to the health risks associated with fatness itself, using emotive moralistic language that is not expressed in discussions of alcohol or tobacco abuse. It is not about cholesterol or heart rate, but about how much social freedom women are going to get away with or concede. Wolf (1991) makes the statement that "39 percent of all women who smoke say they smoke to maintain their weight; one quarter of those will die of disease caused by cigarette smoking--though, to be fair, the dead women's corpses will weigh on average four pounds less than will the bodies of the living nonsmokers." (Wolf, 1991:229)

Female fat is not in itself unhealthy. Radiance magazine (a magazine for larger women) states that "there is very little evidence to support the claim that fatness causes poor health among women ... The results of recent studies have suggested that women may in fact live longer and be generally healthier if they weigh ten to fifteen percent *above* the life-insurance figures *and* they refrain from dieting." Wolf (1991) writes that her research has brought her to the conclusion that "when poor health is correlated to fatness in women, it is due to chronic dieting and the emotional stress of self-hatred." (Wolf, 1991:187)

Excessive concern with weight can lead to a virtual collapse of self-esteem and sense of effectiveness. Wolf (1991) states that prolonged and periodic caloric restriction results in a distinct personality whose traits are passivity, anxiety, and emotionality. She writes that it is those traits, and not thinness for its own sake, that the dominant culture wants to develop in recently liberated women, to cancel out the threat of their newly-found liberation. Following the second wave of feminism, "women's advances had begun to give them the opposite traits--high self-esteem, a sense of effectiveness, activity, courage, and clarity of mind." (Wolf, 1991:188) She states that this patriarchal society's push for prolonged caloric restriction in women is calculated to have women become weak and preoccupied. (Wolf, 1991)

Women's magazines and the weight loss industry have reclassified healthy adult female flesh as "cellulite." This invented "condition" was imported

into the United States by *Vogue* in 1973 and is now referred to by the media as "disfiguring," "unsightly," and "polluted with toxins." (Wolf, 1991)

Goodman (1995) argues that "It is not just so-called extra pounds which the fat woman is trying to lose when she submits to a diet; she is also trying to escape the extra emotional weight dumped on her back in the form of social condemnation." (Goodman, 1995:22) She asserts that weight bigots will seize any argument to justify their ill-treatment of fat people, and the media-induced rationalization about fat being unhealthy is one of their all-time favorites. Each time a weight bigot reads an article about the 'dangers' of fat, it is a reinforcement of his/her position of physical, even moral, superiority over all fat people as a group. (Goodman, 1995)

Shaw and Wooley (1991) write that their review of research shows that fat people don't eat more than thin people and that the number of fat people who overeat has been greatly overestimated. They state that this information does not seem to discourage people from making judgments to the contrary.

Stress

Schroeder (1992) asserts that fat people in the modern Western society are victims of excessive emotional stress during their entire lives. He states that the harmful effects of chronic stress upon health and longevity is solidly established and that this alone could account for the statistical evidence that fat

people die prematurely. He notes that stress has not yet been factored into fatness research.

Regarding weight and emotional health, Wiley (1994) also asserts that in studies of fat and health the factor of stress has been ignored. She writes that prolonged stress results in the secretion of certain hormones that lower the effectiveness of the body's immune system and has the effect of increasing the production of insulin. Fat people live with daily prejudice and discrimination and this can be very stressful. Dieting is also very physically and emotionally stressful, especially continually losing and regaining weight. This can place far more stress on the body than extra pounds.

Erdman (1996) too points out that larger people have to deal with the increased stress of living in a fat-phobic country with the resultant constant discrimination and persecution.

In discussing body size and emotional health, Goodman (1995) states that:

> It's time to consider the question of stress as it relates to weight prejudice and so-called weight-related diseases. The annals of dieting are filled with hundreds of stories of fat women emotionally devastated by years of ridicule and humiliation, and yet their misery is ultimately attributed to their own failures as ignorant or uncommitted dieters rather than the failure of others to behave with simple human decency. On top of this is the smug insistence by many professionals and laypersons alike that even if a heavy woman isn't presently sick, she will be in the future. This outrageous assumption seeks to rob healthy fat people of the most basic sense of emotional well-being, as it demands that they live in dread of the future under a sentence of certain doom. (Goodman, 1995:38)

Regarding the myth of mental unfitness, Goodman (1995) asserts that society "cloaks fat women in a shroud of mental illness while placing thin women on a pedestal supposedly built on a solid and unquestionable foundation of self-esteem." (Goodman, 1995:44) Thin women are held up as models of physical and mental health, as long as the consequences of any bad habits or neuroses go unseen.

Lyons (1989) writes that social discrimination against fat people creates an environment where isolation for emotional protection is common. The effects of social prejudice are a source of stress for fat people. "One could legitimately argue that the source of problems commonly associated with fatness is not the result primarily of weight, but is instead the result of lives spent painfully alone." (Lyons, 1989:74)

RESEARCH ON ANTI-FAT ATTITUDES AND DISCRIMINATION

The research reviewed in this section looks at various examples of stigma attached to being fat and the discrimination and prejudice that accompany this.

Young and Powell (1985) conducted research to find out if a client's weight would influence the clinical judgments by mental health practitioners. They had 120 mental health workers evaluate a case history that included a photograph of the client. Using the photographic process ECRM, the authors

altered the image of a single photograph of a middle-aged woman to produce three pictures: a best-weight model, an overweight model, and an obese model. The research found that mental health workers are more likely to assign negative psychological symptoms to the obese model than to the overweight or best-weight model.

Survey research conducted by Adams, Smith, and Wilbur (1993) on over 1300 physicians found that 17% of doctors indicated they were reluctant to perform pelvic examinations on obese patients, specifically because of their size. Adams calls this a substantial minority, since any percentage of physicians reluctant to treat patients based only their body size means a critical delay in detecting cancer of the genital tract in obese women.

Interestingly, research looking at obesity from a medical standpoint (Callaway, 1987) found several significant points, including findings that obesity is over-diagnosed in women versus men, that women's natural pear shape is not associated with increased health risks, and that restrained eating (dieting) predisposes binge eating.

Research by Pingitore, Dugoni, and Tindale (1994) questioned whether moderately obese individuals, especially women, would be discriminated against in a mock employment interview. They conducted research where 320 subjects rated videotapes of a job interview that used the same professional actors appearing as normal weight or made up to appear overweight by the use of

theatrical prostheses, and found that the bias against hiring overweight people does exist, especially for female applicants. Bias was most pronounced when applicants were rated by subjects who were satisfied with their bodies and for whom perceptions of their bodies were central to their own self-concept.

Brink's (1988) research with college undergraduates who evaluated candidates for jobs and promotions found that there is job discrimination against the severely obese. Those candidates who were severely obese were evaluated lower in experiments on both hiring and promotion, finding that obesity can lead to discrimination in hiring and promotion decisions.

Jasper and Klassen (1990) conducted research with undergraduate students, questioning whether subjects 1) would want to work with obese salespeople, and 2) how would they rate obese versus normal weight salespeople's effectiveness at their job. The data indicate that subjects' evaluations of obese salespeople were influenced by negative stereotypes of obese people and that these unfavorable perceptions diminished their desire to work with them and led to a belief that these persons would be less effective in their jobs than nonobese salespeople.

Research was done in a shopping mall by Pauley (1989) to investigate the response times of salespersons to customers of different weights. There were over 180 observations with a result of a mean response time to the nonfat group being 16 seconds, whereas the mean response time to the fat group was 29

seconds. The findings support the essentially negative evaluation of overweight individuals in our country, with fat customers experiencing longer response times from salespersons than their thinner counterparts.

Harris, Walters, and Waschull's (1991) research on 650 college students sought to assess individual perceptions of societal prejudice regarding obesity and to see whether or not people would express personal views which were less disparaging than those attributed to society at large. The overall stereotypes of overweight persons were both negative and unrelated to subjects' own degree of obesity, although individuals reported that their personal views were less negative than those of others. Women indicated greater concern with obesity than men in several ways, and the societal stereotype of an overweight woman was seen as more negative than that of an overweight man.

In looking at the way that people view women's choice of food, Mooney, DeTore, and Malloy (1994) did research on how subjects would assess a female target based on her preference for a low fat or high fat diet. They found that the target who preferred low fat foods was viewed more favorably than the one who preferred high fat fare, in that the former was perceived as having a significantly smaller body type and as being more attractive, intelligent, conscientious, and calm.

Steinberg and Birk (1983) did research on social interaction and compliance with 120 male and female subjects of varying weights. The subjects

were asked to do a neutral favor by either a normal-weight or an overweight confederate. The findings were that both the male and female subjects were less compliant to requests from overweight than normal-weight confederates.

Research by Clayson and Klassen (1989) questioned whether perceptions of attractiveness differed by degree of fatness. They investigated whether nonobese people were seen as significantly more attractive than obese persons. Over 300 college students were asked to evaluate workers from resumes, which were manipulated for obese-nonobese and hair color. The research found that there was an obesity stereotype. The obese were seen as unattractive as compared to the nonobese.

Harris, Harris, and Bochner (1982) conducted research on whether obese people would be stereotyped negatively compared to normals. They had university students rate a target person described as male or female, overweight or average weight, and wearing glasses or not, on twelve 7-point rating scales. A negative stereotype of the overweight person was found.

Harris (1990) also conducted research on societal stereotyping of the obese in relation to love. She questioned whether love is seen as different for the obese and whether they are perceived as having a different experience of love. Over 200 college students completed an anonymous questionnaire concerning their own experience with love. They then saw a photograph of a male or female who appeared either fat or of normal weight and responded to an

identical questionnaire as they thought the pictured person would. The findings were that fatter persons were judged to be less attractive, lower in self-esteem, less likely to be dating, less erotic, and to deserve a fatter, uglier love partner. These findings were consistent with the theory that obese people are stereotyped as having fewer resources to contribute to a relationship.

Additional research on love and sexuality of the obese was conducted by Regan (1996). Undergraduates received information about a male or female, obese or normal-weight, stimulus person and then evaluated that person along several dimensions related to sexuality to assess whether a person's body weight influenced perceptions of his or her interpersonal relationships and value as a social or sexual partner. The participants believed that an obese man's sexual experiences would be highly similar to those of a normal-weight man. However, participants viewed an obese woman as less sexually attractive, skilled, warm, and responsive, and perceived her as less likely to experience desire and various sexual behaviors than a normal-weight woman. In addition, participants believed that an obese woman was less sexually attractive, skilled, warm, and responsive than an obese man.

Some very interesting research was conducted by Sitton and Blanchard (1995) on what men would think is worse in a partner: obesity or a history of drug addiction. Advertisements were placed in personal columns of two metropolitan newspapers. Fewer men responded to a personal advertisement in

which a woman identified herself as obese than to one in which she indicated a history of drug addiction.

Research on marital status in relation to obesity by Sobal, Rauschenbach, and Frongillo (1992) found that obesity may operate as a barrier for entry into the marital role, just as it has been shown to do for the roles of student and employee.

Sobal and Stunkard (1989) in their review of 144 published studies regarding socioeconomic status and obesity have found a strong inverse relationship between obese women and low economic status and downward mobility. They found that in a society that strongly stigmatizes obesity and rewards thinness, both marital and occupational social mobility are far less available to the obese and more available to thin people.

Research by Averett (1996) using the NLSY data looked at income, marital status, and hourly pay differential by body mass index (BMI). A significant finding was that obese women have lower family incomes than women whose BMI is in the "recommended" range. She found similar results when comparing same-sex siblings in order to control for family background (e.g., social class) differences. Differences in economic status by body mass for women increased markedly when the sample was restricted to single and childless women. Averett also found that there is some evidence of labor market discrimination against obese women; however, differences in marriage

probabilities and in spouse's earnings account for 50% to 95% of their lower economic status.

There appears to be a loop effect between socioeconomic status (SES) and obesity. While Averett (1996) and Sobal and Stunkard (1989) found evidence that obesity in women negatively affected their chances of upward mobility, it has also been found by Charboneau (1990) that those with higher SES had the money and time to exercise and eat better and thus have a better chance of keeping a lower and more stable body mass. Those women with a lower SES did not have the time to exercise like women with a higher SES. Stuart and Davis (1972) suggest that:

> Poverty may lead to poor education (including education about health and nutrition), little access to the opportunity for vigorous exercise, and proscription from those aspects of the occupational hierarchy which differentially reward nonobese persons. Second, it is possible that lower socioeconomic groups may place a positive value upon obesity either as a means of survival, as an aesthetic trait, or as a counter-cultural or at least sub-cultural norm. This would imply that, denied access to the requisites of a sound diet, occupants of lower socioeconomic strata might place a positive value upon obesity either as a sign of rejection of middle-class values, a possibility which finds some support in the fact that the dominant American reference groups do seem to regard obesity as a form of social deviance. (Stuart and Davis, 1972)

Research by Crandall (1995) with over 1,000 college students found that females were less likely to receive support from their parents for college education if they were fatter than average. He found that no such effect emerged for males. Controlling for income, ethnicity, family size, and number of children attending college did not change the results. This suggests that

parents' attitudes may lead to discrimination within families and can then affect life chances for their heavyweight daughters.

Another example of research in the field of economic disability for the overweight is that of Crandall (1991). He questioned whether heavy-weight students would have more difficulty paying for college than normal-weight students. In three studies with almost 1,000 students, he found that heavy-weight college students rely more on jobs, savings, or financial aid than do normal-weight students, who rely primarily on family support. This effect is more reliable for women than for men. The effect remains even when parents' educational level, parents' income, race, family size, and number of children attending college are factored out.

In looking at the type of people who hold anti-fat attitudes, Crandall and Biernat (1990) conducted two studies with over 1000 undergraduates examining anti-fat attitudes, political conservatism, symbolic racism, sexual attitudes, religiosity, and a variety of social and political attitudes associated with authoritarianism. Their findings were that people who are anti-fat are more politically conservative, racist, in favor of traditional sex roles in marriage, and restrictive toward the sex lives of others, and that these anti-fat attitudes are substantially correlated with authoritarianism.

Crandall, in additional research in 1994, examined prejudice against fat people and found three commonalities between anti-fat attitudes and racism: 1)

the association between values, beliefs, and the rejection of a stigmatized group, 2) the old-fashioned antipathy toward deviance of many sorts, and 3) the lack of self-interest in out-group antipathy. Interestingly, Crandall found that fatism appears to behave much like symbolic racism, but with less of the negative social desirability of racism.

RESEARCH ON CROSS-CULTURAL DIFFERENCES

Several studies have looked at how culture relates to views on obesity and also to social class differences of fat people in other countries.

Using the Anti-Fat Attitudes Questionnaire on over 400 students from Mexico and the United States, Crandall and Martinez (1996) found that Mexican students were significantly less concerned about their own weight and more accepting of fat people than were the U.S. students. A cross-national community survey in Texas and Mexico by Ross and Mirowsky (1983) examined the relationship of social and cultural factors to overweight. Among the Anglos, women weigh relatively less than men, whereas among Mexicans, women weigh relatively more than the men. The authors concluded that, possibly, norms concerning the social desirability and acceptability of thin women, which are so prevalent in Anglo culture, do not exist to such a degree among the Mexicans. An issue in this journal article with which this researcher disagrees is that the

authors posited that being overweight was, as a matter of course, related to health problems. Subsequent research (Callaway, 1986) has shown that pear-shaped fat distribution, the most common in women, is not associated with increased health risks.

A study by Tiggeman and Rothblum (1988) looked at whether there was a difference between men and women and between Americans and Australians and how they view obesity. The authors asked undergraduate students in both Australia and the United States about their weight and dieting history, their consciousness about their body, the degree to which their own weight had interfered with social activities, their perceptions about the causes of obesity, and their stereotypes about fat and thin men and women. Interestingly, although only 20% of the subjects were actually classified as overweight, 50% perceived themselves to be. American students reported greater frequency of dieting, more concern about weight, and more body consciousness than did students in Australia. Men and women in both cultures stereotyped obese targets significantly more negatively than they did nonobese targets.

RESEARCH ON COPING WITH THE STIGMA OF OBESITY

One effect of weight discrimination is that obese persons may experience emotional distress as the result of the negative attitudes directed toward them.

Research done on the consequences of being overweight by Stake and Lauer (1987) found that the condition of being overweight had a more negative effect on women than on men. They surveyed undergraduate students about ideal body size, the social consequences of being overweight, their own body size/self-attitudes, and concern with body size. Average-weight subjects showed a preference for thin women but not for thin men. The condition of being overweight negatively affected the quantity and quality of women's relationships with men, but had little effect on men's relationships with women. Overweight negatively affected the self-attitudes of all subjects, but particularly those of women. Average-weight and, particularly, overweight women showed more concern regarding their body size than either average-weight or overweight men.

Grilo, Wilfley, and Brownell (1994) conducted research on teasing, body image, and self-esteem of obese women. They looked at how being teased about one's weight as a child might affect the adult obese person. They worked with 40 overweight females presenting for outpatient treatment at the Yale Center for Eating and Weight Disorders and had them take a variety of tests plus psychosocial interviews. The research revealed that the frequency of being teased about weight and size while growing up was negatively correlated with evaluation of one's appearance and positively correlated with body dissatisfaction during adulthood. Self-esteem was unrelated to teasing history but covaried significantly with body image measures. Subjects with early-onset

obesity reported greater body dissatisfaction than did subjects with adult-onset obesity. The findings suggest that being teased about weight/size while growing up may represent a risk factor for the development of negative body image and that self-esteem and body image covary.

Research on self-esteem of adolescent girls as related to weight was done by Martin, Housley, and McCoy (1989). They questioned how weight relates to self-esteem in adolescent girls. Over 550 14- to 16- year old girls were given the Rosenberg Self-Esteem Scale. Self-esteem scores were categorized by weight and weight by height. The research found that the mean self-esteem of the low- and middle-weight by height group was significantly higher than the mean of the high-weight by height group. The correlation of the obesity index and self-esteem indicated that as weight increased self-esteem decreased. These results indicate the possibility that adolescent girls do internalize the attitudes of society about body size, which may result in lowered self-esteem for overweight girls.

Research on depression and body image in relation to obesity by Faubel (1989) asked if obese women have a poorer body image than women of normal weight and if obese women are more depressed than women of normal weight. The authors used the Beck Depression Inventory and the Body-Self Relations Questionnaire. The findings were that obese women do not necessarily have a poorer body image than women of normal weight. Although the obese women

tested saw themselves as less fit than women of normal weight, they did not see themselves as less healthy or even as less attractive. The results also showed that obese women are not necessarily more depressed than women of normal weight.

Survey research by Harris, Waschull, and Walters (1990) on the motivations, knowledge, and attitudes of overweight women and men attempted to 1) look at the experience of obesity from the perspective of the overweight person, 2) measure overweight individuals' knowledge of some of the facts about obesity, 3) assess respondents' personal feelings about overweight people and their perceptions of societal attitudes and discrimination toward the obese, and 4) compare the experiences of being overweight for men and women. This study looked at obesity from the perspective of 47 women and 8 men who considered themselves overweight (mean BMI of 28.9). They responded to a questionnaire about various aspects of motivation to lose weight, knowledge about obesity, and personal and societal attitudes toward the obese. Some of the findings were that knowledge about obesity was imperfect, with women and thinner subjects somewhat more knowledgeable. Most respondents were unaware of the association of social status and thinness in the United States and believed that overweight people eat more than people of average weight. Subjects were aware of and shared some of the negative social stereotypes of the obese, blaming themselves for their overweight. However, most would not trade their obesity

for other handicaps found less stigmatizing in other research. As expected, women expressed a greater desire for thinness than men.

Additional research regarding knowledge on health issues by Davis, Wheeler, and Willy (1987) found that normal-weight individuals possessed significantly more knowledge than obese persons about broad, health-based issues.

A controversial piece of research was conducted by Baumeister, Kahn, and Tice (1990). They looked at whether obesity may be used as a self-handicapping strategy for some people. Their hypothesis was that some obese people may be attracted to obesity because it could be used as a strategy to reduce anxiety by deflecting blame for perceived personal shortcomings or inadequacies. Their research did come up with findings that there may be a subpopulation of individuals (i.e., high self-handicappers) who are attracted to obesity as a means for furnishing themselves with excuses for potential failures and shortcomings. They write that it is plausible that some people are motivated to become or remain obese because of these attributional benefits, although they do note that "our data are inadequate to test such a causal hypothesis." (Baumeister, Kahn, and Tice, 1990:123)

Grana, Coolidge, and Merwin (1989) looked at personality profiles of the morbidly obese and found that although morbidly obese patients did score higher than normals on Hysteria, Hypochondriasis, and Depression on the MMPI scale,

that since these scales do measure somatic concerns, they may be elevated for people who seek medical attention for their physical problems, and that the possibility existed that these people actually did have real medical problems. A drawback with this study was that the subjects were obese people who had elected to have a gastroplasty in order to lose weight. The assumption is that people who have elected to go to this extreme measure would not necessarily be typical of the majority of obese people.

Schumaker, Krejci, and Small (1985) did research to see if there is a relationship between obesity and reported loneliness. They administered the Revised UCLA Loneliness Scale to 68 obese and 64 nonobese individuals with a wide cross-section of ages. They found that obese subjects had significantly higher loneliness ratings than nonobese subjects. Obese women had significantly higher loneliness scores than nonobese women but no such difference was found between obese men and their thin peers.

Research on stigma and attribution by Crocker, Cornwell, and Major (1993) looked at how overweight versus normal weight people attribute social feedback. Twenty-seven overweight and 31 normal weight college women received either positive or negative social feedback from a male evaluator. Relative to other groups, overweight women who received negative feedback attributed the feedback to their weight but did not blame the evaluator for his reaction. This attributional pattern resulted in more negative mood for these

overweight women in comparison with other groups.

Research by Miller, Rothblum, and Barbour (1990) looked at whether the stigma associated with obesity is likely to limit the opportunities obese women have to develop social skills. They conducted research with 15 obese women and 22 nonobese women; they had the women converse on the telephone with college studies who were unaware of the women's weights. The telephone partners of obese women rated the women more negatively than did the partners of nonobese women. These findings suggest that there are real differences in the social behavior of obese and nonobese women and that these differences affect the impressions formed by those with whom they interact. Obese women were liked less, made a poorer impression, and were rated as being less socially skilled and less physically attractive than nonobese women. The more obese the women were, the less positively they were evaluated by their telephone partners and the college student judges. This suggests that the effects of the stigma associated with obesity becomes greater as the level of obesity increases and suggests that stereotypes affect social interactions.

Research by Miller, Rothblum, and Felicio (1995) looked at whether and how obese women compensate for their stigma. The research was done with 77 obese and 78 nonobese women using brief telephone conversations where one-half of the non-subject telephone partners were also able to see the women on a video monitor. The women's beliefs about whether their appearance could affect

their partners' reactions to them were manipulated by telling half of them that their partners could watch their behavior on a monitor and telling the rest that their partners could not see them. The findings indicated that obese women who are aware of the need to compensate for their partners' reactions to their appearance are able to do so.

Additional research by Miller, Rothblum, and Brand (1995) with the same subjects as the above study examined whether obese women have poorer social relationships than nonobese women. The 77 obese and 78 nonobese women completed self-report measures of social anxiety, social self-esteem, social competence, social network size, and perceived social support from friends. The researchers had friends and coworkers of the subjects also rate these women on the same measures. The self-reports of the obese and nonobese women did not differ significantly on any of these social measures, and ratings from friends and coworkers of obese women were not different from ratings of nonobese women by friends and coworkers. These results suggest that obese women may be able to overcome prejudice against obese people in their relationships with others.

A study done by Molinari and Riva (1995) examined self-perceptions of obese women and compared them with these women's attitudes toward thin, normal-weight, and obese persons. They concluded that if obese women consider obesity as a largely negative condition, they have an ambivalent attitude

toward themselves, in that, even though they share the negative connotations socially attributed to obesity, emotionally these women "not only tend not to recognize their 'abnormality' but strongly desire it." (Molinari and Riva, 1995:1287) A liability found in their study was that these subjects, at the time of this study, had just completed a six week treatment at an inpatient program for eating disorders. These subjects would not necessarily represent the views of most obese people, since they had gone to the extreme measure of participating in an inpatient treatment program. Molinari and Riva concluded that these obese women who accepted themselves had "emotional disorders" and would "still need to eat to feel themselves strong and secure." (Molinari and Riva, 1995:1289) This appears to be a very anti-fat conclusion; that there must be something wrong with obese women who are accepting of themselves.

Research done by Herman, Olmsted, and Polivy (1983) on susceptibility to social pressure and social influence found that there may be a more general concern on the part of overweight people to secure behavioral guidance from the external environment, physical or social. It may be that dieting per se -- a disposition exhibited by many overweight individuals -- produces (or demands) an inability or unwillingness to be guided by one's internal signals, especially as they bear on whether or how much to eat. The research was done in a natural restaurant environment with over 300 diners over 13 evenings. Overweight diners were found more likely than normal weight diners to increase their dessert

ordering when they were cued by the external force, the waitress who recommended dessert.

MEDICAL AND PHYSIOLOGICAL RESEARCH ON OBESITY

According to Brownell and Wadden (1992) in their paper on the etiology and treatment of obesity, the body cannot be shaped at will. They assert that it is best to establish a reasonable weight, which may differ from health and aesthetic ideals.

Foster, Wadden, and Kendall (1996) in their research on the effects of weight loss and regain found confirmation of earlier reports of significant weight regain after weight loss treatment. They studied 55 women participants from an obesity treatment program and recorded information at baseline, after six months of treatment, and 58 months posttreatment.

Research on weight cycling by Carmody, Brunner, and St. Jeor (1995) found that weight fluctuation is deleterious for health, while weight maintenance is desirable. They compared obese versus nonobese adults and weight cyclers versus maintainers on measures of dietary helplessness, nutrition concern, dietary restraint, and disinhibition.

Research by Bartlett, Wadden, and Vogt (1996) looked at weight cycling, the cycle of weight loss and regain. They found that regaining weight is an

adverse experience. Participants with a severe history of weight cycling had a significantly younger age of onset of their obesity than did mild weight cyclers and reported initiating dieting at a significantly younger age and lower weight.

In looking at depression and obesity, Ross (1994) conducted a telephone survey using random digit dialing with variables of weight, gender, age, race, education, marital status, family income, walking, and strenuous exercise. The research found that being overweight has no direct effect on depression in any social group except among the well educated, but that overweight persons were more likely to diet and to experience worse physical health, both of which are associated with depression.

Stewart and Brook (1983) did research based on cross sectional data from a general population of over 5,000 people aged 14 to 61. They found that 10% of this population were moderately overweight and 12% were severely overweight. This total of 22% compared with 41% of the total population who perceived they were overweight. Additional findings were that the perception of being overweight is associated with considerable worry and restricted physical activity because of this condition.

Tucker and Bagwell (1991) studied the relationship between obesity and time spent watching television. They surveyed over 4,000 adult females and found that those who reported three to four hours of TV viewing per day showed almost twice the prevalence of obesity and those who reported more than four

hours of TV watching per day showed more than double the prevalence of obesity compared to the reference group who watched less than one hour of TV per day.

Dishman (1982) looked at exercise adherence and different body types. He found that body composition played a big role in who adhered to an exercise program. The higher the person's percentage of body weight which is fat, the more likely they are to drop out. He asserts that one reason is that exercise may simply be physically harder for the heavy and fat exerciser.

In looking at the role that stigmatization can play in fat people's avoidance of physical exercise, Packer (1989) concluded that the stigmatization that fat people face discourages them from engaging in physical exercise as a means of maintaining health. Social factors such as fear of being ridiculed by others and difficulty in keeping up with others or looking awkward negatively influence fat people's motivation to exercise. Packer notes that "Women in our society typically have even less leisure time than men have; therefore, the notion that all fat people need to do is get "enough" exercise is particularly oppressive to women." (Packer, 1989:52)

Lyons (1989) looks at fitness and the health of fat women. Oppression based upon body size can create internalized feelings of shame and self-hatred, as well as conditions and behaviors which are a direct threat to health and well-being. She reports that deprivation of movement is a fundamental

disenfranchisement from the body. She asserts that making exercise accessible to large women via sport and movement are fundamental ways for these women to learn to trust and enjoy their bodies and improve their health.

CHAPTER SUMMARY

In this chapter, the history of fatness, a feminist perspective on fat, as well as research on the stigmatization of fat people, were presented.

The research reviewed illustrates the wide range of types of discrimination toward obese people. It seems to affect obese women more than men. The stigma of obesity is so highly visible that it cannot be avoided unless the obese person retreats from society.

This review also demonstrates the need for more research on the relationship between restricted physical activity and obesity (Stewart and Brook, 1983; Tucker and Bagwell, 1991; Dishman, 1982) and the benefits of movement for obese people (Hayes and Ross, 1986; Lyons, 1989).

Several studies that have not been addressed in this chapter, but that are very important to this research, are presented in both the Theory and Methodology chapters.

The following chapter examines several theories of attribution and how they relate to the issue of stigmatization of fat/obese people.

CHAPTER II

THEORY

In the previous chapter, research on the stigmatization of fatness/obesity illustrated the wide range of discriminatory behavior toward fat/obese persons. While negative consequences are seen for both men and women, it appears in Western society to affect women more strongly than men. A feminist perspective on this issue was presented in the previous chapter and will be discussed further in this and the Discussion chapter.

The purpose of this research is to assess how fat/obese persons are derogated, given the extent to which they can be blamed or held responsible for their fatness/obesity; and to see whether beliefs about the "culpability" of fat/obese persons would affect attitudes toward these persons. This chapter will examine attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967; Weiner, 1986), the primary theory upon which this research is based.

Attribution is one of a variety of cognitive inferences that are included within social cognition, a theoretical model within social psychology. Attribution theory deals with the process of how an individual explains other people's behavior. An attribution can be explained as a deduction about why a behavior occurred. In the process of trying to understand and control their environment, individuals form impressions of others on the basis of their

behavior. Additionally, individuals consider the motives of others when assessing the general causes of their actions.

In the following section, the development of attribution theory will be presented through a review of the work of major attribution theorists, including Fritz Heider (1958), Edward E. Jones and Keith Davis (1965), Harold Kelley (1967), and Bernard Weiner (1986).

Fritz Heider (1958)

The development of attribution theory began with Heider's (1958) original attempt to provide a systematic, conceptual explanation of commonsense or "naive" psychology. Heider (1958) claimed that people attempt to understand, predict, and control events in their everyday lives in much the same way that scientists do. He asserted that people make observations about their social world and form theories based on these. Subsequent observations then serve to support, refute, or modify these theories.

Heider (1958) identified environmental (external) and personal (internal) factors as two general classes of factors that produce action or behavior. He asserted that "of special importance for the interpretation of the social world is the separation of the factors located in persons and those that have their source in the environment of these persons." (1958:297) People attribute the action of others to either personal or environmental factors and make evaluations of

responsibility based on one or the other of these factors. Heider (1958) also identified intention as the central factor in personal causality. He stated that "the diagnosis of intention may affect the judgment of responsibility and the appraisal of ability." (1958:117)

The current research will study whether attribution of perceived responsibility is a primary factor in the stigmatization of fat/obese persons.

Edward E. Jones & Keith Davis (1965)

Jones and Davis' (1965) attribution theory of correspondent inference focused on dispositional attributions. They proposed that an individual uses a rational strategy to make internal (dispositional) attributions about others. She/he observes an action of another person and notices its effects. Then she/he questions whether that person had prior knowledge of the action's effects and/or a choice in performing the action. If this is found to be so, the individual would then infer that the person's behavior was intentional and would attribute it to specific characteristics (that is, the disposition) of that person.

This study will look at whether people conjecture that fat/obese persons have become so through choices they have made (i.e., eating too much food and/or not getting enough exercise). This study will also attempt to determine whether people would consider this to be intentional behavior and whether they would, therefore, make a negative attribution as to the character of the fat/obese

person.

Harold H. Kelley (1967)

Kelley's (1967) covariational model of attribution addressed the question of whether a given behavior is perceived as being caused by a person (internal cause) or by the environment (external cause) and how the behavior would be attributed to causes that co-vary with it over time. According to this model, the attribution of cause is based on three types of information: consensus, distinctiveness, and consistency.

* Consensus refers to the similarity between the person's behavior and the behavior of other people in similar situations. Does just this person behave in this way (low consensus) or does everyone else also behave in this way (high consensus)?

* Distinctiveness refers to the generality of the person's behavior. Is the person's behavior unique to this situation (high distinctiveness) or does he/she behave in this manner in each situation (low distinctiveness)?

* Consistency refers to the person's behavior in this situation. In this same situation, has this person behaved in this same way before (high consistency) or is his/her behavior unique to this particular instance (low consistency)?

Each of these three types of information can be given either a low or high value, i.e., low consensus or high consensus. The covariance of all three is the key. There are many possible combinations of these three types of information. Kelley made predictions about the following three combinations:

* If there is low consensus, low distinctiveness, and high consistency, then the given behavior is attributed to the person.

* If there is high consensus, high distinctiveness, and high consistency, then the given behavior is attributed to the environment.

* If there is low consistency, then the given behavior can be attributed to circumstance.

Building upon Heider's (1958) work, a phenomenon called the fundamental attribution error (FAE) was identified. FAE is when an individual tends to overemphasize the role of dispositional (personal) factors in shaping other people's behavior and underemphasizes the impact of situational (environmental) factors. Burger (1991) maintained that the strength of the fundamental attribution error might diminish over time.

The discussion of the applicability of Kelley's model to the current research will be postponed until discussion of related material of Bernard Weiner.

Bernard Weiner (1986)

Weiner (1986) developed an attributional theory based on three major covarying causal dimensions: locus, stability, and controllability.

* Locus refers to the location of a cause internal or external to the person.

* Stability refers to the temporal nature of a cause, varying from stable to unstable.

* Controllability refers to the degree of volitional influence that can be exerted over a cause.

It is the combination and covariation of these factors that lead to certain

attributions and accompanying emotions. Weiner's (1986) attribution research has shown that an individual's reactions to others can be understood if his/her perceptions of responsibility are examined. A person who is perceived as responsible for a negative event is likely to elicit anger from other people, whereas a person who is not held responsible is likely to evoke sympathy or pity. According to Weiner (1986), social behaviors are guided by these specific attribution-dependent emotions (sympathy and anger).

Weiner, Perry, and Magnuson (1988) conducted research to investigate reactions to deviant individuals. They asked undergraduate subjects to estimate how responsible people were for various stigmatizing conditions. This research found that people were not considered responsible for physical stigmas such as blindness, cancer, and paraplegia; however, people were considered responsible for such stigmas as drug abuse, obesity, and child abuse. Individuals who were believed not to be responsible for their stigmas evoked more sympathy, liking, and help-giving than did individuals who were judged as responsible for their stigmas.

Relationship of Kelley's (1967) and Weiner's (1986) attribution theories

In this section, the association of Weiner's factor of controllability and Kelley's factors of consensus and distinctiveness as they relate to internal causal attributions for fatness/obesity are examined.

Weiner's (1986) attribution theory relates to the primary hypothesis in this research (see Presentation of Hypotheses in this chapter) that fat/obese people will be viewed more positively if their fatness/obesity is viewed as outside of their control. As shown in Table 1 below, if the fatness/obesity is seen as due to causes perceived by others as controllable (lack of willpower, lack of discipline), then negative attitudes (anger) are elicited. However, if this failure is perceived as uncontrollable (genetic disposition to fatness/obesity, metabolism disorder), then positive attitudes (pity or sympathy) are elicited.

Perception of Responsibility	Locus of Control Internal	Emotion Elicited
Controllable	Lack of willpower Lack of discipline	Anger (Negative attitude)
Uncontrollable	Genetics Metabolism disorder	Pity or sympathy (Positive attitude)

Table 1. Perception of responsibility, locus of control, and resulting emotion. (Adapted from Weiner, 1988)

Kelley's (1967) and Weiner's (1986) attribution theories examine different aspects of the hypotheses that subjects with family or close friends who are fat/obese would have more positive attitudes toward fat/obese persons in general. If the subject does have fat/obese family or close friends, the assumption would be that this individual would make different attributions of

controllability because she/he would have different information on consensus and distinctiveness. See examples in Table 2. below.

Does subject have family/close friends who are fat/obese?	Consensus		Distinctiveness	
	Low	High	Low	High
Yes		Family member does not fit negative stereotype of fat/obese people (that they lack willpower and discipline), so subject realizes that all fat/obese people do not fit the stereotype.		Subject with fat/obese family/close friends sees fat/obese person eat a high calorie food, but knows that he/she normally eats sensibly.
No	Subject does not know anyone personally who is fat/obese, so relies on negative stereotype of fat/obese people (that they lack willpower and discipline).		Subject sees fat/obese person eat a high calorie food and assumes that he/she eats this way in all situations.	

Table 2. **Application of Kelley's (1967) general model of causal attribution**

As shown in Table 2., if there is low consensus and low distinctiveness, then an internal causal attribution of controllability will be made, i.e. that the

person is in control of their fatness/obesity. However, if there is high consensus and high distinctiveness, then an internal causal attribution of uncontrollability will be made, i.e., that the person does not have control of their fatness/obesity.

HOW ATTRIBUTION APPLIES TO FAT OPPRESSION

Additional research has demonstrated the further application of attribution theory to perceived responsibility for physical deviance.

DeJong (1980) explored the idea that whether or not a physically deviant person is derogated would depend on the extent to which that individual could be blamed or held responsible for his or her appearance. He conducted two experiments to examine how adolescent girls' opinions of an obese peer would be influenced by their belief about the cause of her obesity. It was demonstrated by these studies that unless the obese target could offer an "excuse" for her weight, i.e. a glandular disorder, or could report recent successful weight loss, she was given a less positive evaluation and was less liked than was a normal-weight target. DeJong (1980) writes that "the extremely negative attitudes expressed toward the obese seem to arise from the belief that obesity is caused by self-indulgence, gluttony, or laziness" (1980:77). He continues that if a person's physical characteristics are presumed to be under their direct control, that they can then be blamed for any variation from the norm in terms of that

characteristic. The characteristic comes to be seen not as a misfortune but as a personal defect. DeJong (1980) concluded that perception of responsibility plays a large role in reactions to the physical stigma of obesity. "It is not the mere fact that obese people are physically deviant which causes them to be derogated, but that they are assumed to be responsible for their deviant status." (1980:85)

Juvonen (1991) examined the relationship between perceived deviance and negative peer reactions. He identified two major findings. First, the more peers perceived a classmate as deviant, the more likely they were to reject that classmate. Second, children's perceptions of responsibility for the deviance predicted specific attribution-dependent affects (anger and sympathy), how liked or disliked the deviant person was, and negative peer reactions (rejection and lack of social support). Figure 1. illustrates this general perceived responsibility/peer reaction relationship. Figure 2. illustrates the application of Juvonen's general model to the perception of responsibility for fatness/obesity and the resulting attitudes and behavior.

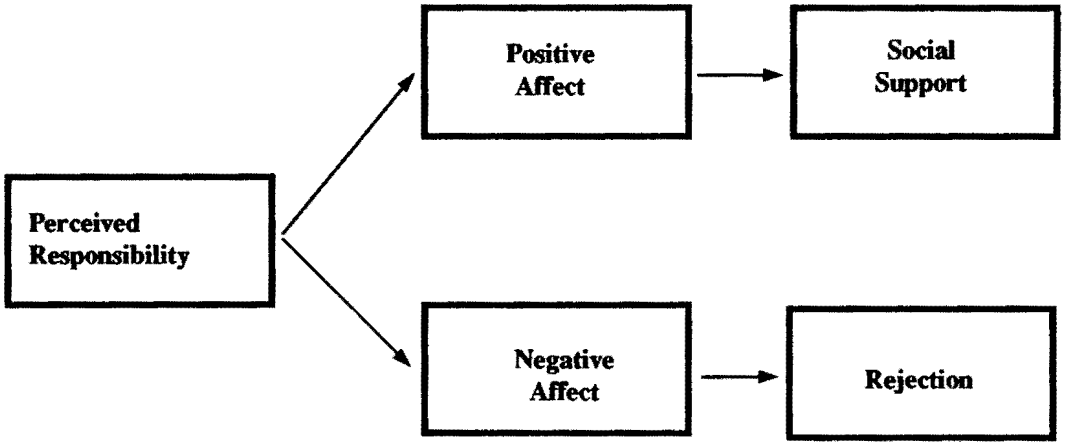

Figure 1. Juvonen's general model of perceived responsibility/ peer reaction relationship. (Juvonen, 1991:677)

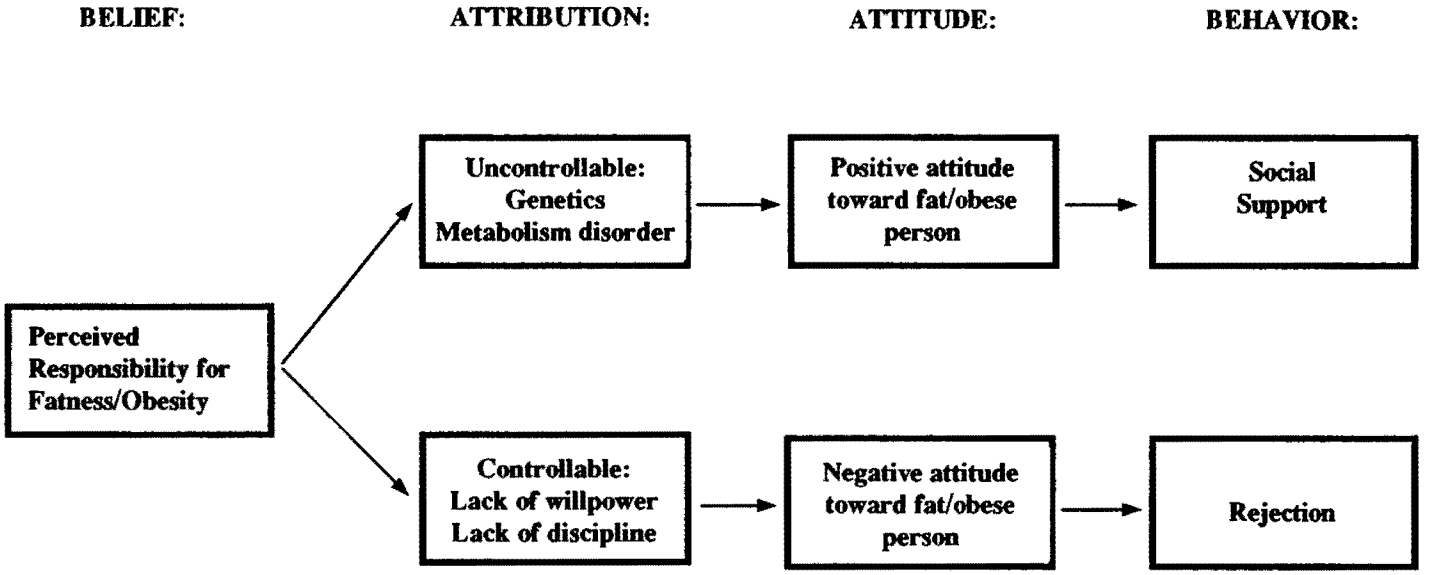

Figure 2. Application of Juvonen's general model of perceived attribution/peer reaction relationship to attribution of responsibility for fatness/obesity.

Both Weiner's (1986) and Kelley's (1967) theories of attribution, along with DeJong's (1980) and Juvonen's (1991) research on perceived responsibility and physical deviance, relate specifically to this research by pursuing issues of blame for the fat/obese person's physical condition.

Radical feminist theory, as detailed in the Literature Review, relates general negative attitudes toward fat/obese women to a misogynist, patriarchal society. The message that women's bodies are wrong because they are (naturally) more fat than men's is at the heart of fat discrimination. Wolf (1991) asserts that shaming women about their natural body shape is a way of controlling women in a patriarchal society, of keeping them occupied with continually adhering to a thin beauty standard in order to have them not reach for power. By hating body fat, women and men can be made to hate femaleness. In the Discussion chapter, examples of feminist theory will be related to particular research questions.

The following section presents the main hypotheses of this study.

PRESENTATION OF HYPOTHESES

As presented in the following chapter, Methodology, beliefs about and attitudes toward fat/obese persons are operationalized as scores on the 28 questions on the first page of the research questionnaire. Eight of these

questions comprise the Beliefs About Obese Persons (BAOP) scale and 20 of these questions comprise the Attitudes Toward Obese Persons (ATOP) scale. On the BAOP scale, higher scores indicate a stronger belief that obesity is not under the obese person's control. On the ATOP scale, higher numbers indicate more positive attitudes toward fat/obese persons. On the second page of the questionnaire are silhouette figures and accompanying questions regarding ideal body size and conceptualization of the terms "fat" and "obese."

H1- That fat/obese people would be viewed more positively if their fatness/obesity is viewed as outside of their control.

H2- That there would be a difference in beliefs and attitudes regarding "fat" versus "obese" targets.

H3- That the ideal female figure would be assessed as lower than the ideal male figure by both male and female subjects.

H4- That the older the subject is, the higher the BAOP and ATOP scores would be.

H5- That male subjects would score higher on the BAOP and ATOP scales.

H6- That subjects with a higher body mass index would score lower on the BAOP and ATOP scales.

H7- That subjects who had dieted in the last three months would score lower on the BAOP and ATOP scales.

H8- That subjects who have family members who are fat/obese would score higher on the BAOP and ATOP scales.

H9- That subjects who have close friends who are fat/obese would score higher on the BAOP and ATOP scales.

CHAPTER SUMMARY

In this chapter, a review of attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967; Weiner, 1986) was presented. Research relevant to the stigma of fatness/obesity and perceived responsibility for such was also presented.

The following chapter, Methodology, will examine instrument development, data collection, and hypotheses for this research.

CHAPTER III

METHODOLOGY

In applying the various attribution theories of Heider, Kelley, Jones & Davis, and Weiner, this chapter will look at the methods used to examine what impact beliefs about perceived responsibility of fatness/obesity may have on subjects' attitudes toward fat/obese persons.

RESEARCH DESIGN

Ragin (1994) states that the starting point of quantitative analysis is the idea that the best route to understanding basic patterns and relationships is to examine patterns across many cases. Quantitative research methods were deemed most appropriate for this type of investigation. Specifically, the experiment design is what is designated by Campbell and Stanley (1963) as a "one-shot case study." This is defined as a one-time survey with no control group.

In addition to the direction provided by attribution theory, there was assistance from the methodological orientation of Allison (1991). Questions for the testing instrument were obtained from two companion scales developed by Allison, Basil, and Yuker (1991): the Beliefs About Obese Persons (BAOP)

scale and the Attitudes Toward Obese Persons (ATOP) scale. The BAOP scale was designed to measure the extent to which one believes obesity is under the control of the obese person. The ATOP scale was designed to measure attitudes toward obese persons. Developing a reliable and valid instrument for measuring these beliefs and attitudes and examining the relationship between them was central to Allison's 1991 research. Allison (1991) writes that:

> Both scales are psychometrically satisfactory, with high internal consistency. The intercorrelation of the scales is significant, but less than their coefficient alphas, suggesting that the scales measure different constructs and possess discriminant validity. The results obtained from all three samples were similar with respect to reliability, intercorrelations, and factor structure, for both the ATOP and BAOP. This argues strongly for generalizability of the results. (Allison, 1991:605)

The outcome of the scores in Allison's (1991) study indicated that "people who believe obesity is largely beyond the obese person's control tend to have more positive attitudes toward obese persons than do those who believe obesity can be controlled by the obese person." (Allison, 1991:605)

INSTRUMENT DEVELOPMENT

The research protocol included building a quantitative instrument to measure beliefs and attitudes and to correlate them with demographic and other variables. In developing this questionnaire, the BAOP and ATOP scales originally developed and tested by Allison (1991) were utilized. The eight

Likert-scale questions measuring beliefs and the 20 Likert-scale questions measuring attitudes comprised the first page of the research questionnaire and were utilized exactly as they appeared on the original Allison (1991) BAOP and ATOP scales.

Two different variations of the questionnaire were constructed (see Appendix A and Appendix B), and divided equally among subjects, varying only in the wording; the term "obese" was left exactly as is on the first variation and the term "obese" as it appeared in every question was changed to "fat" on the second variation. The reasoning behind having two different sets of questionnaires, differing only between the words "obese" and "fat," was 1) to compare the "obese" set of questionnaires directly against Allison's (1991) test results (since his research used the word "obese"), and 2) to examine the difference between the words "obese" and "fat" on the two variations of the questionnaire. This researcher was unable to find any other written research comparing the words "fat" and "obese" for beliefs about and attitudes toward fat/obese persons. A research article (Price, Desmond, and Hallinan, 1987) assessing subjects' perceptions of word descriptions for male and female silhouettes using the words "heavy," "obese," and "overweight" was located, but the word "fat" was not utilized in this research.

An important distinction needs to be made between the words "obese" and "fat." Fat acceptance groups such as the National Association to Advance

Fat Acceptance (NAAFA) and Ample Opportunity have pressed for the use of the word "fat" instead of words such as "obese," "large," or "overweight," saying that these and other popular euphemisms for fat are inaccurate and carry connotations which deprecate fat people. Their assertion is that "obese" is a medical term based on the premise that all fat is pathological, "overweight" gives undue authority to the insurance charts that imply that there is a proper weight which one can be over, and "large" hides fat among tall or large-boned figures. NAAFA has adopted terminology that proclaims its members' differences from others in a neutral or positive way and in a manner that takes issue with the majority's view of normalcy. The motive has been to discard labels that have been applied by the oppressive majority and instead to use a name originating from the minority group itself. The aspiration of fat acceptance groups is that if the stigma can be taken away from the word "fat," then it can be descriptive not pejorative, and fat can be accepted as just another size.

The present research specifically did not define the terms "obese" and "fat" in the questionnaire, but instead asked the subjects to conceptualize the term on the second page of the instrument, where it was asked what would be the lowest-numbered figure that the subjects would consider to be "fat" or "obese," depending on which version of the questionnaire they received.

The first page of the questionnaire was set up in a grid system, where the subjects could check boxes for each question on six Likert-scale levels from

"strongly disagree" and "strongly agree." These were the same levels as Allison's (1991) original instruments. Like Allison (1991), there was not a "no opinion" checkoff box; this was done specifically so that subjects would have to make a decision in each response. A note was made at the top of the first page of the questionnaire asking the subjects to not leave any answers blank.

Attitudes Toward Obese Persons (ATOP) Scale

Questions #1 through #20 on the first page of the questionnaire measure attitudes toward obese/fat persons. These questions were taken directly from Allison's (1991) ATOP scale. High scores demonstrate that the subject has more positive attitudes toward fat/obese persons. In terms of reliability for this scale, Allison (1991) reported that coefficient alphas ranged from 0.80 to 0.84. Readability of the ATOP scale was assessed by Allison (1991) using the Flesch-Kincaid and Flesch Reading Indexes. The Flesch-Kincaid Index refers to the grade level at which a scale is written. The ATOP's Flesch-Kincaid Index was 7.7. This means that a student whose standardized reading score falls at the seventh month of the seventh grade should be able to understand the scale. The Flesch Reading Index refers to the general ease of reading, ranging from 1 to 100, where lower scores represent greater difficulty and higher scores represent greater ease of reading. The ATOP's Flesch Reading Index was 57.

Scoring instructions for the ATOP (Allison, 1995)

Step 1): Multiply the response to the following items by -1 (i.e., reverse the direction of scoring):

Items 2 through 6, Items 10 through 12, Items 14 through 16, Items 18 through 20.

Step 2): Add up the responses to all items.

Step 3): Add 60 to the value obtained in Step 2. This value is the ATOP score. Higher numbers indicate more positive attitudes.

Example:

Step 1): Answers on items 2, 3, 4, 5, 6, 10, 11, 12, 14, 15, 16, 18, 19, and 20 are multiplied by -1.

Step 2): Adding up all responses in this example, the total is 11.

Step 3): 60 is added to the total of 11 to bring the new total to 71. This value is the ATOP score. The lowest possible score is 0. The highest possible score is 120.

Beliefs About Obese Persons (BAOP) Scale

Questions #21 through #28 on the first page of the questionnaire measure beliefs about fat/obese persons. These questions were taken directly from Allison's (1991) BAOP scale. The BAOP scale measures the extent that one believes obesity is or is not under the control of the obese person. High scores demonstrate that the subject believes that fatness/obesity is not within the control of the individual. Allison (1991) utilized three samples in his study. The first consisted of 1278 NAAFA members, the second of 52 psychology graduate

students, and the third of 72 undergraduate students. In terms of reliability for this scale, Allison (1991) reported that coefficient alphas were 0.82 for the NAAFA sample, 0.65 for the graduate students, and 0.79 for the undergraduates. Readability of the BAOP scale was assessed by Allison (1991) using the Flesch-Kincaid and Flesch Reading Indexes. The BAOP scored 8.5 on the Flesch-Kincaid Index and 56.2 on the Flesch Reading Index.

Scoring instructions for the BAOP (Allison, 1995)

Step 1): Multiply the response to the following items by -1:

Item 1, Items 3 through 6, and Item 8.

Step 2): Sum the responses to all items.

Step 3): Add 24 to the value obtained in Step 2. This value is the BAOP score. Higher numbers indicate a stronger belief that obesity is not under the obese person's control.

Example:

Step 1): Answers on items 1, 3, 4, 5, 6, and 8 are multiplied by -1.

Step 2): Adding up all responses in this example, the total is -5.

Step 3): 24 is added to the total of -5 to bring the new total to 19. This value is the BAOP score. The lowest possible score is 0 and the highest possible score is 48.

Questionnaire - Page 2

The second page of the questionnaire consisted of questions regarding figure assessment (by silhouette figures), demographic questions regarding age, gender, height, weight, college major, and ethnic background, a question about whether the subject had dieted within the last three months, a question about whether the subject was satisfied with his/her current weight, and two questions about whether the subject had family members who were fat/obese and whether they had close friends who were fat/obese. There was also a three line section for written comments by the subjects.

Figures (Silhouettes)

To obtain information on subjects' assessment of body size, two sets of silhouette figures, female and male, were utilized (see Figure 3). These sets of figures ranged from Figure 1, the thinnest figure, to Figure 9, the heaviest figure. These silhouette figures were taken directly from the Figure Rating Scale by Stunkard, Sorensen, and Schulsinger (1983).

Figure 3. **Figure Rating Scales (Stunkard, 1983)**

There were two questions regarding each set of figures. The first question was which of the female (male) figures the subject would consider the ideal female (male) body. The second question was which would be the lowest-numbered female (male) figure that the subject would consider to be fat/obese. The wording on these two questions was changed as on the first page of the questionnaire to be either "obese" or "fat."

Age

The age data was recoded into two categories: "under 30" and "30 and above" for both variations of the questionnaire. Undergraduate enrollment figures by age were obtained from Portland State University to ascertain whether the data set collected in this research was representative of the school. (See Appendix E)

Gender

Undergraduate enrollment figures by gender were obtained from Portland State University to ascertain whether the data set collected in this research was representative of the school. (See Appendix D)

Body Mass Index

Data from height and weight questions on the instrument were converted into Body Mass Index with the following formula: weight x height^2. The BMI's were then recoded into categories of "under 30" and "30 and over" for both variations of the questionnaire.

Ethnic Background

Undergraduate enrollment figures by ethnic background were obtained from Portland State University to ascertain whether the data set collected in this research was representative of the school. (See Appendix D)

PRETEST

An instrument pretest was performed before administration of the final research questionnaires. The pretest was administered to both the first year and second year graduate student classes in the Sociology department at Portland State University. After administration of the pretest, feedback was requested from the subjects. Several changes were made on the instrument following this feedback.

The pretest data was entered into the Statistical Package for the Social Sciences software (SPSS) and processed. Means and correlations were computed and scatterplots and bar graphs were created in order to assess the instrument.

DATA COLLECTION

Subjects were undergraduate students from Portland State University from seven separate classes. Of these seven classes, four were from the Sociology department, two were from the Sophomore Inquiry area, and one was from the Economics department. This was done in an attempt to obtain a cross-section of 200 and 300 level classes to broaden the data set.

All subjects were tested in a classroom setting at Portland State University. Subjects were assigned randomly to one of the two variations of the

questionnaire. The testing procedure was explained with the same wording and in the same order for each class. All subjects filled out the Informed Consent form (see Appendix C) and returned it with their answered questionnaire. Subjects were advised not to put their name on the questionnaire; it was explained that this would keep the results anonymous and confidential.

The questionnaires were given to 255 subjects. One entire class of subjects (n=27) was excluded from the data analysis; it was a night class held at a satellite campus (Capital Center) and had a significantly higher mean age. Of the 228 remaining, 13 questionnaires were filled out improperly and were excluded from the analysis. This left a total of 215 subjects. The data was entered into the Statistical Package for the Social Sciences software (SPSS) and processed.

CHAPTER SUMMARY

In sum, the purpose of this methodology was to explore in a quantitative manner the relationship between beliefs about and attitudes toward obese/fat persons and the relationships of several independent variables to the belief/attitudes scale and the silhouette figures.

In the following chapter, Findings, results of the processed data will be examined.

CHAPTER IV

FINDINGS

The previous chapter looked at the methods used in this research to examine what impact beliefs about perceived responsibility for fatness/obesity may have on subjects' attitudes toward fat/obese persons. Also discussed were the methods used to examine the relationship between several independent variables (age, gender, body mass index (BMI), dieting history, presence of fat/obese family members, and presence of fat/obese close friends) to the dependent variables (the Beliefs About Obese Persons (BAOP) scale, the Attitudes Toward Obese Persons (ATOP) scale, and the figure assessment questions). This chapter will examine the relationship between these dependent and independent variables.

As stated previously in the Methodology chapter, for the BAOP scale, higher scores represent the belief that obesity is not within the control of the individual, and for the ATOP scale, higher scores represent more positive attitudes toward obese persons. The possible range of scores on the BAOP scale is from 0 to 48. The possible range of scores on the ATOP scale is 0 to 120. Breaking down the questionnaire results (n=215) into the two variations, "fat" (n=112) and "obese" (n=103), the following was found. For the "fat" version of the questionnaire, the scores on the BAOP scale ranged from 5 to 47, the scores

on the ATOP scale ranged from 38 to 103, the mean of the BAOP scale was 19.84, and the mean of the ATOP scale was 72.63. For the "obese" version of the questionnaire, the scores on the BAOP scale ranged from 2 to 40, the scores on the ATOP scale ranged from 34 to 108, the mean of the BAOP scale was 22.89, and the mean of the ATOP scale was 69.51. (See Table 3.)

To test Hypothesis #1, that fat/obese people would be viewed more positively if their fatness/obesity was viewed as outside of their control and that the opposite would be true that fat/obese people would be viewed more negatively if they were deemed responsible for their fatness/obesity, a bivariate correlation was performed. On the "fat" variation of the questionnaire, the Pearson Correlation coefficient for the BAOP/ATOP relationship was .389 and the correlation was significant at the 0.01 level ($p<.001$), so the data does show a relationship between the BAOP scores and the ATOP scores. On the "obese" variation, however, the Pearson Correlation coefficient for the BAOP/ATOP relationship was only .097 and the significance was .331, clearly not significant, so this data does not show a clear relationship between the BAOP scores and the ATOP scores.

Table 3 shows support for Hypothesis #1 for the "fat" variation of the questionnaire only.

	ATOP Mean	ATOP S.D.	ATOP Range	BAOP Mean	BAOP S.D.	BAOP Range	Pearson Corr.	Sig.
Fat n=112	72.63	13.68	38-103	19.84	8.50	5-47	.389	<.001
Obese n=103	69.51	12.86	34-108	22.89	8.73	2-40	.097	.331

Table 3. **Mean, Standard Deviation, and Range for BAOP and ATOP scores Relating to Hypothesis #1**

Hypothesis #2 proposed that the BAOP and ATOP scores would be different for the "fat" version than for the "obese" version of the questionnaire. To test this hypothesis, a one-way analysis of variance (ANOVA) was performed. On the BAOP scores, there were moderate to strong findings (p=.010) for higher mean scores for the "obese" version (22.89) versus the "fat" version (19.84). On the ATOP scores, however, there were moderate findings (p=.087) for higher mean scores for the "fat" version (72.63) versus the "obese" version (69.51). Table 4 shows that Hypothesis #2 was proven true, that there were differences in the BAOP and ATOP scores on the two versions of the questionnaire. However, on the BAOP scores, the "obese" variation had a higher mean score, while on the ATOP scores, the "fat" variation had a higher mean score.

	Fat Mean N=112	Obese Mean N=103	F value	Significance
BAOP	19.84	22.89	6.744	.010
ATOP	72.63	69.51	2.956	.087

Table 4. **Comparison of "Fat" and "Obese" mean scores on BAOP and ATOP scales Relating to Hypothesis #2**

A comparison of Allison's (1991) research with the BAOP and ATOP scales to the current research is presented in Table 5 below.

	ATOP Mean	ATOP S.D.	ATOP Range	BAOP Mean	BAOP S.D.	BAOP Range	Pearson Corr.	Sig.
Clute Fat n=112	72.63	13.68	38-103	19.84	8.50	5-47	.389	<.001
Clute Obese n=103	69.51	12.86	34-108	22.89	8.73	2-40	.097	.331
Allison Obese n=72	63.9	16.7	23-96	19.4	8.7	0-41	.41	<.001

Table 5. **Comparison of Allison's (1991) research and present research**

Hypothesis #3 proposed that the ideal female figure would be assessed as lower than the ideal male figure by both male and female subjects. As discussed in the Methodology chapter, the figure assessment scales ranged from 1 to 9. To test this hypothesis, a paired-samples t-test was performed. The mean figure assessment rating for the ideal female body by all subjects (n=215) was 3.65 and the mean figure assessment rating for the ideal male body by all subjects was 4.30. This represents a finding of almost one complete body size assessment difference. The correlation was .432 with a significance of <.001. Table 6 below presents information for this comparison.

N=215	Figure Range	Figure Mean	Paired Samples Correlation	Significance
Ideal Female Body	2-6	3.65	.432	<.001
Ideal Male Body	2-6	4.30		

Table 6. **Ideal Female Body compared to Ideal Male Body Relating to Hypothesis #3**

In the figure assessment portion of the questionnaire, the question was asked for both female and male figures, "What is the lowest-numbered figure you would consider to be fat?" or "What is the lowest-numbered figure you would consider to be obese?", depending upon the variation of the questionnaire. This question was asked to ascertain the subjects' concept of the term "fat" or

"obese," dependent upon which variation of the questionnaire they received.

One-way ANOVA tests were performed to compare "fat" versus "obese" for both variations of the questionnaire. As shown in Table 7, the term "fat" was found to be ranked on this instrument approximately one full figure assessment smaller than the term "obese" (6.30 vs. 7.22 for males and 6.07 vs. 7.11 for females).

Paired-samples t-tests were performed to compare female and male figures for both the "fat" and the "obese" variations of the questionnaire. As shown in Table 7, for the "fat" variation of the questionnaire, the male mean was 6.30 and the female mean was 6.07, with the correlation for the male/female relationship being .802, $p<.001$. For the "obese" variation of the questionnaire, the male mean was 7.22 compared to the female mean of 7.11, with the correlation for the male/female relationship being .814, $p<.001$.

	Fat Mean n=112	Obese Mean n=103	F Value	Sig.
Lowest Numbered Figure - Male	6.30	7.22	55.072	<.001
Lowest Numbered Figure - Female	6.07	7.11	52.077	<.001
Paired-samples t-test correlation	.802	.814		
Significance	<.001	<.001		

Table 7. **Figure Assessment**

Hypothesis #4 proposed that the older the subject is, the higher the BAOP and ATOP scores would be. To test this hypothesis, a one-way ANOVA was performed. As demonstrated in Table 8, this hypothesis does not hold true in this research. The low number of subjects aged 30 and above (n=11 out of a total of 112 for "fat" and n=15 out of a total of 103 for "obese") weakens any possible results for this hypothesis.

	BAOP scores by Age for "fat" only F=2.900 P=.091		ATOP scores by Age for "fat" only F=.906 P=.343		BAOP scores by Age for "obese" only F=.816 P=.445		ATOP scores by Age for "obese" only F=.307 P=.737	
	N	Mean BAOP score	N	Mean ATOP score	N	Mean BAOP score	N	Mean ATOP score
Age < 30	101	20.29	101	72.23	87	22.53	87	69.10
Age ≥ 30	11	15.73	11	76.36	15	25.33	15	71.93
No answer					1	18.00	1	69.00
Total	112	19.84	112	72.63	103	22.89	103	69.51

Table 8. **BAOP and ATOP scores by Age for "fat" and "obese" Relating to Hypothesis #4**

Hypothesis #5 proposed that male subjects would score higher on the BAOP and ATOP scales than female subjects. To test this hypothesis, a one-way ANOVA was performed, and as demonstrated in Table 9, this hypothesis does not hold true. Interestingly, the opposite finding is made on the ATOP scores for the "fat" variation where female subjects scored significantly higher than male subjects.

	BAOP scores by Gender for "fat" only F=.446 P=.506		ATOP scores by Gender for "fat" only F=8.743 P=.004		BAOP scores by Gender for "obese" only F=.341 P=.560		ATOP scores by Gender for "obese" only F=.746 P=.390	
	N	Mean BAOP score	N	Mean ATOP score	N	Mean BAOP score	N	Mean ATOP score
Female	62	20.32	62	75.95	65	22.51	65	68.68
Male	50	19.24	50	68.52	38	23.55	38	70.95
Total	112	19.84	112	72.63	103	22.89	103	69.51

Table 9. **BAOP and ATOP scores by Gender for "fat" and "obese" Relating to Hypothesis #5**

To test Hypothesis #6, that subjects with a higher Body Mass Index (BMI) would score lower on the BAOP and ATOP scales, a one-way ANOVA was performed. There are no strong findings to either support or refute this hypothesis. Table 10 does show a lower mean BAOP score for BMI of 30 and above, with an F value of 4.816 and a significance of .030. While this shows a fairly strong finding, the low number of subjects (n=12 out of a total of 112 on the "fat" variation and n=8 out of a total of 103 for the "obese" variation) weakens any possible results for this hypothesis.

	BAOP scores by BMI for "fat" only F=4.816 P=.030		ATOP scores by BMI for "fat" only F=.906 P=.343		BAOP scores by BMI for "obese" only F=.260 P=.611		ATOP scores by BMI for "obese" only F=.792 P=.376	
	N	Mean BAOP score	N	Mean ATOP score	N	Mean BAOP score	N	Mean ATOP score
BMI < 30	100	20.44	100	72.23	95	23.02	95	69.84
BMI $\geq$ 30	12	14.83	12	76.36	8	21.38	8	65.63
Total	112	19.84	112	72.63	103	22.89	103	69.51

Table 10. **BAOP and ATOP scores by Body Mass Index (BMI) for "fat" and "obese" Relating to Hypothesis #6**

Table 11 presents findings for Hypothesis #7, that subjects who had dieted in the last three months would score lower on the BAOP and ATOP scales. To test this hypothesis, a one-way ANOVA was performed. The only finding was for BAOP scores for "obese" variation, where those who had dieted in the last three months did score significantly lower on the beliefs scale than those who did not have the same dieting history. The F value was 6.630, the significance was .011, and the confidence intervals did not overlap.

"Have you dieted within the last three months?"	BAOP scores by diet history for "fat" only F=1.125 P=.291		ATOP scores by diet history for "fat" only F=.006 P=.936		BAOP scores by diet history for "obese" only F=6.630 P=.011		ATOP scores by diet history for "obese" only F=.060 P=.807	
	N	Mean BAOP score	N	Mean ATOP score	N	Mean BAOP score	N	Mean ATOP score
"No"	88	20.28	88	72.58	83	23.95	83	69.36
"Yes"	24	18.21	24	72.83	20	18.50	20	70.15
Total	112	19.84	112	72.63	103	22.89	103	69.51

Table 11. **BAOP and ATOP scores by dieting history for "fat" and "obese" Relating to Hypothesis #7**

On the question regarding satisfaction with current weight, subjects' responses were divided almost evenly between "yes" and "no." There were four "no answer" responses on the "obese" variation and one "no answer" response on the "fat" variation. These were people who made written notes that they were not satisfied with their weight and specifically wanted to gain weight, not lose weight. This question was judged invalid by the researcher, given that subjects who answered "no" could have either wanted to lose weight or to gain weight.

The question on the instrument regarding college major was used primarily to ascertain if subjects were evenly distributed from all areas of Portland State University. Percentages by department show Business 26%, Justice Administration 13%, Sociology 12%, and Psychology 7%, with the other departments accounting from 1% to 4% each.

The question on ethnic background was also used primarily to ascertain if the percentages of the data population were similar to Portland State University (PSU) ethnic enrollment figures. Percentages were very similar, with research figures showing White 65%, Asian 14%, Black 3%, Hispanic 5%, Native American 1%, and Other 12%, while PSU enrollment figures show White 66%, Asian 11%, Black 3%, Hispanic 4%, Native American 1%, and Other 15%.

Hypothesis #8 proposed that subjects who have family members who are fat/obese would score higher on the BAOP and ATOP scales. A one-way ANOVA was performed to test this hypothesis. As noted in Table 12, there were no findings to support this hypothesis.

"Do you have family members who are fat/obese?"	BAOP scores for "fat" only F=.003 P=.955		ATOP scores for "fat" only F=.099 P=.754		BAOP scores for "obese" only F=2.155 P=.145		ATOP scores for "obese" only F=.026 P=.873	
	N	Mean BAOP score	N	Mean ATOP score	N	Mean BAOP score	N	Mean ATOP score
"No"	35	19.77	35	72.03	68	23.79	68	69.37
"Yes"	77	19.87	77	72.91	35	21.14	35	69.80
Total	112	19.84	112	72.63	103	22.89	103	69.51

Table 12. **BAOP and ATOP scores by "fat" and "obese" Relating to Hypothesis #8**

A significant finding related to Hypotheses #8 and #9 is that in assessing the lowest-numbered male and female figures that they would consider to be obese, subjects with obese family members and close friends picked a consistently lower-numbered figure than those subjects who indicated they did not have obese family members or friends. Tables 13 and 14 give a breakdown of this information. This same finding did not hold true for the "fat" variation of the questionnaire.

"Do you have family members who are obese?"	N	Lowest-Numbered Figure Mean - Male F=4.802 P=.031	Lowest-Numbered Figure Mean - Female F=6.671 P=.011
"No"	68	7.37	7.31
"Yes"	35	6.94	6.71
Total	103		

Table 13. **Mean Lowest-Numbered Figure Considered "Obese" by Subjects with Obese Family Members**

"Do you have close friends who are obese?"	N	Lowest-Numbered Figure Mean - Male F=6.067 P=.015	Lowest-Numbered Figure Mean - Female F=5.930 P=.017
"No"	61	7.41	7.33
"Yes"	42	6.95	6.79
Total	103		

Table 14. **Mean Lowest-Numbered Figure Considered "Obese" by Subjects with Obese Close Friends**

To test Hypothesis #9, that subjects who have close friends who are fat/obese would score higher on the BAOP and ATOP scales, a one-way ANOVA was performed. There are moderate findings for ATOP scores for both the "fat" and "obese" variations of the questionnaire as shown in Table 15, with the F value being 2.296 and the significance .090 for "fat" and the F value being 3.137 and the significance .080 for "obese." These findings are not observed for the BAOP scores.

"Do you have close friends who are fat/obese?"	BAOP scores for "fat" only F=.141 P=.708		ATOP scores for "fat" only F=2.296 P=.090		BAOP scores for "obese" only F=.908 P=.343		ATOP scores for "obese" only F=3.137 P=.080	
	N	Mean BAOP score	N	Mean ATOP score	N	Mean BAOP score	N	Mean ATOP score
"No"	37	20.27	37	69.51	61	23.57	61	67.67
"Yes"	75	19.63	75	74.17	42	21.90	42	72.19
Total	112	19.84	112	72.63	103	22.89	103	69.51

Table 15. **BAOP and ATOP scores by "fat" and "obese" Relating to Hypothesis #9**

CHAPTER SUMMARY

The research analysis in this chapter shows several meaningful findings. For the "fat" variation of the questionnaire, the research supports the hypothesis that the Beliefs About Obese Persons (BAOP) scores (higher scores represent the belief that fatness is not within the control of the fat individual) would correlate with the Attitudes Toward Obese Persons (ATOP) scores (higher scores represent more positive attitudes toward fat person), indicating that fat people would be viewed more positively if their fatness was viewed as outside of their control. However, the research did not support this same hypothesis for the "obese" variation of the questionnaire. There was support for the hypothesis that BAOP and ATOP scores would be different for the "fat" variation of the questionnaire as compared to the "obese" variation.

The results of this research also support the hypothesis that the female ideal figure would be assessed as lower than the ideal male figure by both male and female subjects. As discussed in this chapter, there was a finding of almost one complete body size assessment difference.

The research did not support the hypothesis that the older the subject is, the higher the BAOP and ATOP scores would be. There were insufficient numbers of subjects over the age of 30 on which to base meaningful findings.

The hypothesis that male subjects would score higher on the beliefs and

attitudes scales was not supported. Specifically, the opposite was true for the ATOP score for the "fat" variation of the questionnaire, where there was a significant finding that female subjects had a mean ATOP score higher than male subjects.

This research did not result in meaningful findings for the hypothesis that subjects with a higher Body Mass Index (BMI) would score lower on the BAOP and ATOP scales.

The hypothesis that subjects who had dieted in the last three months would score lower on the beliefs and attitudes scales was supported only for BAOP scores for the "obese" variation of the questionnaire.

There were no findings to support the hypothesis that subjects who have family members who are fat/obese would score higher on the beliefs and attitudes scales. There were, however, moderate findings that subjects who have close friends who are fat/obese would score higher on the ATOP scale.

In the next chapter, Discussion, explanations and reasoning for the presented hypotheses and subsequent findings will be discussed.

CHAPTER V

DISCUSSION

The results of this study have been found to support several of the research hypotheses, but the majority of findings have not proven conclusive or consistent. In some hypotheses, attribution theory can be a plausible explanation, while in others, feminist perspective can be used to explain findings.

The testing of the first hypothesis (that fat/obese people will be viewed more positively if their fatness/obesity is viewed as outside of their control) showed a significant finding for a relationship between the Beliefs About Obese Persons (BAOP) score (higher scores represent the belief that obesity is not within the control of the individual) and the Attitudes Toward Obese Persons (ATOP) score (higher scores represent more positive attitudes), but only for the "fat" variation of the questionnaire, not the "obese" variation. As presented in the previous chapter, the Pearson Correlation coefficient for the "fat" BAOP/ATOP relationship was .389 with a significance at the 0.01 level. The "obese" BAOP/ATOP relationship showed a much smaller correlation coefficient, .097.

Based on Weiner's (1986) attribution theory, where individuals' reactions to others can be understood if their perceptions of controllability are examined, it

was proposed that this hypothesis would be true regarding both the "fat" and "obese" variations of the questionnaire. A possible explanation for the difference in the strength of the relationship between beliefs and attitudes between the "fat" and "obese" variations of the questionnaire is that the term "obese" might have evoked more negative attitudes, regardless of the perception of blame for the physical condition, while for the term "fat," the opposite might hold true.

The second hypothesis proposed that there would be a difference in the mean "fat" scores versus the mean "obese" scores on the beliefs and attitudes scales, but it was unidentified at the time of testing whether the "fat" or "obese" variation of the questionnaire would prove to have higher numbers. Interestingly, the belief (BAOP) score (with a possible range from 0 to 48) was higher for the "obese" (22.89) than for the "fat" (19.84) variation of the questionnaire, while the opposite was true for the attitude (ATOP) score (with a possible range from 0 to 120), where the "obese" (69.51) score was lower than the "fat" (72.63) score. The subject count was fairly equal between the two variations: 112 for "fat" and 103 for "obese." The BAOP mean score difference between the two variations of the questionnaire is not substantial, but does show a higher level of belief about obesity not being under the control of the obese person, whereas fatness appears to be slightly less believed to be under the control of the fat person.

As reported in Chapter IV, Findings, there was almost one full body size

difference on the assessment of the fat and obese silhouette figures on the corresponding questionnaires, with the lowest-numbered figure for "obese" being 7.22 (on a scale from 1 to 9) for males and 7.11 for females and with the lowest-numbered figure for "fat" being 6.30 for males and 6.07 for females. This does show a strong difference in perception of the terms "fat" and "obese" regardless of gender. Looking at this information specifically by gender, in both variations of the questionnaire, the female figure was considered to be either "fat" or "obese" at a lower-numbered figure size than the male figure. Women in this culture are judged by a more stringent standard for thinness than are men and this is confirmed by this research. As discussed in the Literature Review, fat oppression carries the message than women are forbidden to take up space or resources as compared to men.

The third hypothesis proposed that the ideal female figure would be assessed as lower than the ideal male figure by both male and female subjects (n=215). As reported in the Findings chapter, there was a substantial difference between the means of the ideal female body (3.65) and the ideal male body (4.30) on a figure assessment scale of 1 to 9. This hypothesis was proven true.

The review of the literature in Chapter I, particularly from a feminist perspective, showed a substantial bias toward women being held to a thinner body size ideal than men in this culture. Beauty standards are described as a subtle means of control of women in a patriarchal society. (Farganis, 1996) The

issue of weight is a framework for issues like power, entitlement, control, and conformity of women (Goodman, 1995). Thin women benefit from the oppression of fat women; they are rewarded with opportunities because of their size in a society that reinforces the philosophy that thin women deserve to be happy. (Goodman, 1995) Both thin and fat women are taught to fear feeding and nourishing themselves in their attempt to conform to the thin ideal, which in turn diminishes their strength. (Brown, 1989) The money given over to the weight-loss industry drains resources and energy from women, thus assuring their less powerful position in a patriarchal society. An unending quest for thinness sidetracks women from any pursuit of power. (Wolf, 1991)

Hypothesis #4 proposed that age would be a factor in higher belief and attitude scores. This hypothesis was proven wrong. It was proposed prior to information gathering that the older subjects would have had the experience of putting on weight as they aged and so possibly would be less judgmental toward fat/obese persons. In fact, there was a moderate finding of lower rather than higher belief scores for those subjects aged 30 and above on the "fat" variation of the questionnaire (mean BAOP score of 15.73 for age $\geq$30 and mean BAOP score of 20.29 for age <30). However, the number of subjects in the upper age grouping was so low (11 of 112 for "fat" and 15 of 103 for "obese") that the results for this variable were not determinant.

The fifth hypothesis proposed that male subjects would score higher on

the BAOP and ATOP scales than female subjects. This was based on the assumption that female subjects would have internalized more strongly society's general views on derogation of fat/obese persons, since they are targeted more often and more strongly by the mass media on weight issues (Wolf, 1991), and therefore might hold more negative attitudes toward fat/obese persons. This hypothesis was also proven untrue. There was no strong difference between male and female subjects' scores on the two scales, except for attitude scores for the "fat" variation of the questionnaire. In this instance, females had a higher mean score (75.95 for females compared to 68.52 for males), indicating that the females had more positive attitudes toward fat persons. An explanation for this finding might be that the term "fat" may hold less negative connotation than the term "obese" for females.

Hypothesis #6 proposed that subjects with a higher (30 and above) body mass index (BMI) would score lower on the BAOP and ATOP scales, holding more negative attitudes toward fat/obese persons. The reasoning behind this assumption was that these subjects may have internalized society's message that fatness and obesity are negative qualities more strongly because they have been derogated themselves for their physical condition. (Harris, Waschull, and Walters, 1990) Therefore, it was assumed that this group would project these negative attitudes toward other fat/obese persons. The BAOP mean score for the higher BMI group (above 30) on the "fat" variation of the questionnaire did

show substantially lower findings (BMI $\geq$30 of 14.83 versus BMI <30 of 20.44 with an F value of 4.816 and a significance of .030). Again, however, as on the age variable, there were so few subjects (12 out of 112 on "fat" and 8 out of 103 on "obese") that results are weakened by lack of comparability.

The seventh hypothesis, that subjects who had dieted in the last three months would score lower on the BAOP and ATOP scales, was proven true only on the "obese" variation for the BAOP scale. The mean belief scores for the "obese" variation of the questionnaire for those who had a recent dieting history were 18.50, while those who had not recently dieted had a mean belief score of 23.95 (F value of 6.630 and a significance of .011). The concept behind this hypothesis was that if a subject had recently dieted, this may affect that person's belief about the control of the fat/obese person over their fatness/obesity. It was believed that if the subject was able to lose weight, then the subject would feel that other fat/obese people should also be able to do so, and these people would therefore be rated more negatively.

The question on the instrument regarding satisfaction with current weight showed a fairly even division between "yes" and "no" responses. It was conjectured that those subjects who were satisfied with their current weight may have one of several perspectives about fatness/obesity: 1) If the subject had never had a weight "problem," then they may not be able to relate to fat/obese persons and may question why these people are heavy and why they cannot lose

weight, or 2) If the subject had recently lost weight, as presented on the previous variable, he/she may believe that since they have recently been able to "win the battle" with weight, that other fat/obese people should also be able to do so. If, on the other hand, the subject is not satisfied with their weight, 1) He/she may have empathy for fat/obese persons or 2) He/she may have strong negative feelings about their own weight "problem" and so may transfer that feeling to the fat/obese person. In the future, this question would need to be reworked to cover these and other different perceptions. The questions regarding dieting history and satisfaction with current weight would need to be connected to show the reasoning behind weight satisfaction or lack thereof.

On Hypothesis #8 (that subjects who have family members who are fat/obese would score higher on the BAOP and ATOP scales), the conjecture was that those subjects with fat/obese family members would have firsthand knowledge of the difficulty of losing weight and the stigma attached to fatness/obesity as discussed in the Theory chapter. It was proposed that those subjects would believe that fatness/obesity was not necessarily under the control of the fat/obese person and that they would have more positive attitudes in general since they had experience with fat/obese persons. However, there was essentially no difference in BAOP and ATOP scores on either the "fat" or the "obese" variations between those subjects who did or did not have fat/obese family members. The number of subjects who answered that they did have fat

family members was 77 out of a total of 112. The number of subjects who answered that they did have obese family members was 35 out of a total of 103.

Hypothesis #9 proposed that subjects who have close friends who are fat/obese would score higher on the BAOP and ATOP scales. The number of subjects who answered that they did have fat close friends was 75 out of a total of 112. The number of subjects who answered that they did have obese close friends was 42 out of a total of 103. The conjecture was the same as the previous hypothesis. In this case, however, there were moderately significant differences on both the "fat" and "obese" variations of the questionnaire with higher mean scores on the attitude scales for those subjects with fat/obese close friends. The mean ATOP score was 74.17 for those with close friends who are fat, while for those subjects without close friends who are fat the ATOP score was 69.51 ($F=2.296$, $p=.090$). The mean ATOP score was 72.17 for those with close friends who are obese, while for those subjects without close friends who are obese the mean ATOP score was 67.67 ($F=3.137$, $p=.080$). On the BAOP scores, there was virtually no difference in mean score on either variation. A possible reason for more positive attitudes toward fat/obese close friends is the societal assumption that close friends are not supposed to be judgmental of each other.

In relation to Hypotheses #8 and #9, as shown in the Findings chapter, those subjects with obese family members and close friends showed a significant

difference in average figure assessment for lowest-numbered figures considered to be "obese." For the female figures, those subjects with obese family members had a significantly lower average assessed figure rating for what they considered to be "obese" (6.71 on a scale from 1 to 9) than those without obese family members (7.31) (F value of 6.671, significance of .011). Those subjects with obese close friends also had a significantly lower average assessed figure rating for what they considered to be "obese (6.79 compared to 7.33 for those without obese close friends, with an F value of 5.930 and a significance of .017). For the male figures, those subjects with obese family members also had a significantly lower average assessed figure rating for what they considered to be "obese" (6.94) than those without obese family members (7.37) (F value of 4.802, significance of .031). In addition, those subjects with obese close friends also had a significantly lower average assessed figure rating for what they considered to be "obese" (6.95 compared to 7.41 for those without obese close friends (F value of 6.067, significance of .015). These findings did not hold true, however, for the "fat" variation of the questionnaire.

COMPARISON TO/DRAWBACKS OF ALLISON'S (1991) RESEARCH

Comparing the "obese" portion of this study to Allison's (1991) research with the same set of 28 belief and attitude questions, there are some similarities

and differences. Allison's research only tested the term "obese," so only the present research data on "obese" is directly compared to his work. Allison's undergraduate sample size was 72, with an ATOP mean of 63.9 and a BAOP mean of 19.4 compared to the current research "obese" ATOP mean of 69.51 and BAOP mean of 22.89. Allison's correlation coefficient between the BAOP and ATOP was .41, compared to this research correlation coefficient of .097 for the "obese" variation, showing little similarity in correlation findings.

A drawback to Allison's (1991) research was his use of only the word "obese." The current research countered by using two variations of the questionnaire, one with the term "obese" and the other with the term "fat," to examine the differences in conceptualization of these terms. Allison's research was done in 1991. In the intervening seven years between 1991 and the current 1998 research, there has been extensive media coverage on fatness and the term "fat" has been more widely used as compared to the term "obese." The term "obese" has been used less to describe overweight people, since the word "fat" has become so widespread. To be sure, the word "fat" has not had a positive usage, but at least it is more a more recognized word than it used to be. This may be one explanation why the correlation figures on the current research did not match with Allison's (1991) research, as discussed in Hypothesis #1 above.

Another drawback to Allison's (1991) research was his use of the words "persons" or "people" on the beliefs and attitudes scales, as compared to a

possible use of "female" or "male" in the questions. Consciousness about female fat oppression has been raised considerably since 1991, with most of the sources cited in the Literature Review coming after 1991. It would be appropriate in the future to reformat the questionnaire to compare attributions of responsibility and controllability between "female" and "male" targets.

CONCLUSION

The aim of this research was to explore the relationship between beliefs about and attitudes toward fat/obese persons, particularly in respect to issues of perceived responsibility and attribution.

This research contributes to the general body of literature regarding fatness and obesity and specifically adds information on the difference between beliefs and attitudes in regard to the terms "fat" and "obese." Concerning generalizability of results, the sample for this study consisted exclusively of undergraduate students at Portland State University and so may not be representative of the general population. The drawbacks of using an undergraduate sample became clear in the presence of low numbers of fat/obese subjects, ethnic subjects, and older subjects. Future research might examine these hypotheses with a broader base of subjects.

The Literature Review chapter combines information on the history of

fatness/obesity, consolidates perspectives from feminist authors on body size oppression, examines the role of the media and the weight loss industry in the promotion of fat prejudice, and specifically examines recent literature on fat discrimination. Issues including patriarchal oppression, conformity, weight bigotry, deviance, and violation of sex roles are discussed in the section on feminist perspectives. These are pervasive issues in American society and likely have a strong covert impact on the beliefs and attitudes of its members toward fat/obese people. The mass media and weight loss industries contribute to the general denigration of fat/obese people by trying to sway attitudes about fatness/obesity for their own financial goals.

The Theory chapter examines the relationship between beliefs, attributions, and attitudes toward fat/obese people by blending several aspects of existing attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967; Weiner, 1986) with this current research. While there are some significant findings relating beliefs and attitudes, consistent findings on the independent variables were not established.

Based on Juvonen's model (discussed in the Theory chapter), there is an assumption that the attitude scales are going to be affected by measures on the belief scales. Some causal interaction can be anticipated. Future research could look at this relationship.

This study advances knowledge in the field of fatness/obesity by

replicating Allison's (1991) research with the Beliefs About Obese Persons (BAOP) and Attitudes Toward Obese Persons (ATOP) scales and reporting on their correlation and potential relationship with several demographic variables. In addition, combining the Stunkard (1983) figure assessment silhouettes with the belief and attitude scales contributes additional information to the body of fatness/obesity research. The hypotheses regarding ideal body shape and attitudes of subjects with fat/obese close friends showed strong findings. Interesting findings on gender, age, body mass index, recent diet history, and attitudes of subjects with fat/obese family members were also demonstrated for the "fat" and "obese" variations of the questionnaire.

This research, by drawing attention to the differences in individuals' attributions regarding controllability and responsibility for fatness/obesity, helps bring an underexamined issue into the public awareness.

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APPENDICES

APPENDIX A

QUESTIONNAIRE - "FAT" VARIATION

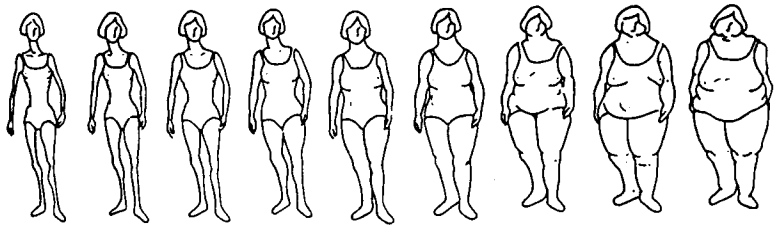
Please mark each statement below, according to how much you agree or disagree with it.
Please do not leave any blank.

	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree
1. Fat people are as happy as other people.						
2. Most fat people feel that they are not as good as other people.						
3. Most fat people are more self-conscious than other people.						
4. Fat workers cannot be as successful as other workers.						
5. Most normal weight people would not want to marry anyone who is fat.						
6. Severely fat people are usually untidy.						
7. Fat people are usually sociable.						
8. Most fat people are not dissatisfied with themselves.						
9. Fat people are just as self-confident as other people.						
10. Most people feel uncomfortable when they associate with fat people.						
11. Fat people are often less aggressive than other people.						
12. Most fat people have different personalities than other people.						
13. Very few fat people are ashamed of their weight.						
14. Most fat people resent normal weight people.						
15. Fat people are more emotional than other people.						
16. Fat people should not expect to lead normal lives.						
17. Fat people are just as healthy as other people.						
18. Fat people are just as sexually attractive as other people.						
19. Fat people tend to have family problems.						
20. One of the worst things that could happen to a person would be to become fat.						
21. Becoming fat often occurs when eating is used as a form of compensation for lack of love or attention.						
22. In many cases, being fat is the result of a biological disorder.						
23. Being fat is usually caused by overeating.						
24. Most fat people cause their problem by not getting enough exercise.						
25. Most fat people eat more than other people.						
26. The majority of fat people have poor eating habits that lead to their being fat.						
27. Being fat is rarely caused by a lack of willpower.						
28. People can be addicted to food, just as others are addicted to drugs, and these people usually become fat.						

Page 2

In the female figures below, which figure would you consider the ideal female body? _____

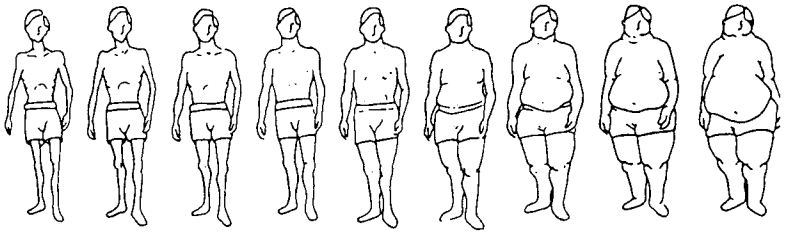
In the female figures below, what is the lowest-numbered figure that you would consider to be "fat"? _____



1 2 3 4 5 6 7 8 9

In the male figures below, which figure would you consider the ideal male body? _____

In the male figures below, what is the lowest-numbered figure that you would consider to be "fat"? _____



1 2 3 4 5 6 7 8 9

Your age: _____

Your gender (male or female): _____

Your height: _____

Your weight: _____

Have you dieted within the last three months? _____

Are you satisfied with your current weight? _____

Your college major: _____

Your ethnic background: _____

Do you have family members who are fat? _____

Do you have close friends who are fat? _____

Comments: _____

_____

_____

I greatly appreciate your time and effort in filling out this questionnaire.

APPENDIX B

QUESTIONNAIRE - "OBESE" VARIATION

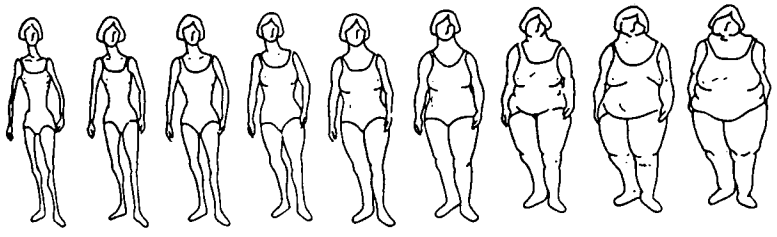
Please mark each statement below, according to how much you agree or disagree with it.
Please do not leave any blank.

	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree
1. Obese people are as happy as other 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 normal weight 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 other people.						
12. Most obese people have different personalities than other 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 other people.						
16. Obese people should not expect to lead normal lives.						
17. Obese people are just as healthy as other people.						
18. Obese people are just as sexually attractive as other people.						
19. Obese people tend to have family problems.						
20. One of the worst things that could happen to a person would be to become obese.						
21. Obesity often occurs when eating is used as a form of compensation for lack of love or attention.						
22. In many cases, obesity is the result of a biological disorder.						
23. Obesity is usually caused by overeating.						
24. Most obese people cause their problem by not getting enough exercise.						
25. Most obese people eat more than other people.						
26. The majority of obese people have poor eating habits that lead to their obesity.						
27. Obesity is rarely caused by a lack of willpower.						
28. People can be addicted to food, just as others are addicted to drugs, and these people usually become obese.						

Page 2

In the female figures below, which figure would you consider the ideal female body? _____

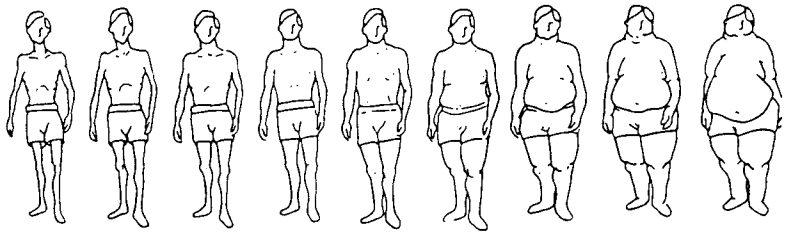
In the female figures below, what is the lowest-numbered figure that you would consider to be "obese"? _____



1 2 3 4 5 6 7 8 9

In the male figures below, which figure would you consider the ideal male body? _____

In the male figures below, what is the lowest-numbered figure that you would consider to be "obese"? _____



1 2 3 4 5 6 7 8 9

Your age: _____

Your gender (male or female): _____

Your height: _____

Your weight: _____

Have you dieted within the last three months? _____

Are you satisfied with your current weight? _____

Your college major: _____

Your ethnic background: _____

Do you have family members who are obese? _____

Do you have close friends who are obese? _____

Comments: _____

_____

_____

I greatly appreciate your time and effort in filling out this questionnaire.

APPENDIX C

CONSENT FORM

Statement of Informed Consent

I, _____, agree to take part in this research project on beliefs about and attitudes toward obese people. I understand that the study involves filling out a questionnaire which contains approximately 40 questions and will take approximately 10 minutes. Sally Clute has told me that the purpose of this study is to research beliefs about and attitudes toward obese persons in our society. I may not receive any direct benefit from taking part in this study; however, the study may help to increase knowledge that may help others in the future. Sally Clute has offered to answer any questions I have about the study and what I am expected to do. She has promised that all information I give will be kept confidential to the extent permitted by law, and that the names of all people in the study will be kept confidential. I understand that I do not have to take part in this study and may withdraw from this study at any time, and that this will not affect my course grade or my relationship with Portland State University.

I have read and understand the above information and agree to take part in this study.

Date: _____ Signature: _____

If you have any concerns of questions about this study, please contact the Chair of the Human Subjects Research Review Committee, Research and Sponsored Projects, 105 Neuberger Hall, Portland State University, 503/725-3417.

APPENDIX D

PORTLAND STATE UNIVERSITY TABLE ETHNIC AND GENDER

TABLE 3.10

Enrollment by Ethnic Origin and Gender
Fall 1997

	Asian		Black*		Hispanic		Native American		Sub-Total Ethnic Minorities		White*		International Student		Other/ Unknown		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Undergraduate																		
Male	535	5.1	133	1.3	150	1.4	61	0.6	879	8.4	3,199	30.7	186	1.8	687	6.6	4,951	47.6
Female	564	5.4	146	1.4	212	2.0	70	0.7	992	9.5	3,677	35.3	187	1.8	603	5.8	5,459	52.4
Total	1,099	10.6	279	2.7	362	3.5	131	1.3	1,871	18.0	6,876	66.1	373	3.6	1,290	12.4	10,410	100.0
Graduate																		
Male	95	2.1	41	0.9	54	1.2	22	0.5	212	4.8	1,297	29.1	214	4.8	219	4.9	1,942	43.6
Female	122	2.7	54	1.2	72	1.6	25	0.6	273	6.1	1,853	41.6	162	3.6	223	5.0	2,511	56.4
Total	217	4.9	95	2.1	126	2.8	47	1.1	485	10.9	3,150	70.7	376	8.4	442	9.9	4,453	100.0
Total Enrollment																		
Male	630	4.2	174	1.2	204	1.4	83	0.6	1,091	7.3	4,496	30.2	400	2.7	906	6.1	6,893	46.4
Female	686	4.6	200	1.3	284	1.9	95	0.6	1,265	8.5	5,530	37.2	349	2.3	826	5.6	7,970	53.6
Total	1,316	8.9	374	2.5	488	3.3	178	1.2	2,356	15.9	10,026	67.5	749	5.0	1,732	11.7	14,863	100.0

* Non-Hispanic.

SOURCE: Student Information System 4th week student data base extract file.

APPENDIX E

PORTLAND STATE UNIVERSITY AGE DISTRIBUTION TABLE

TABLE 3.18.1

Age Distribution by Full Time/Part Time, Student Level, and Gender
Fall 1997, 4th Week

	Full Time				Part Time				Total			
	Undergraduate		Graduate		Undergraduate		Graduate		Undergraduate		Graduate	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-20	809	955	1	1	195	239	2	1	1,004	1,194	3	2
21-25	1,392	1,500	137	237	656	714	152	229	2,048	2,214	289	466
26-30	573	462	244	335	509	445	353	390	1,082	907	597	725
31-35	174	162	120	144	196	257	256	220	370	419	376	364
36-40	70	121	66	81	120	162	165	161	190	283	231	242
41-45	43	83	45	86	90	122	122	169	133	205	167	255
46-50	22	49	28	85	51	104	124	210	73	153	152	295
51-55	5	18	19	34	18	39	61	89	23	57	80	123
56+	6	3	7	7	13	20	38	29	19	23	45	36
TOTAL*	3,094	3,353	667	1,010	1,848	2,102	1,273	1,498	4,942	5,455	1,940	2,508

* Excludes 18 students for whom age data were unavailable.

SOURCE: Student Information System 4th week student data base extract file.