



Pergamon

Eating Behaviors 4 (2003) 53–78

**EATING
BEHAVIORS**

Ways of coping with obesity stigma: review and conceptual analysis

Rebecca Puhl, Kelly D. Brownell*

Department of Psychology, Yale University, 2 Hillhouse Avenue, Box 208205, New Haven, CT 06520-8205, USA

Abstract

There is clear documentation of bias and discrimination aimed at overweight persons, but less is known about methods individuals use to cope with weight stigma. This paper provides an analysis of such methods, integrating work on weight stigma with what is known from other relevant areas (e.g., race and gender bias). Multiple means of coping have been studied, ranging from attempts to change the stigmatizing condition (losing weight) to taking pride in the condition and mobilizing social action to prevent discrimination. The most promising areas for future research, methodological challenges, and the importance of individual difference and situational factors as moderating variables are discussed.

© 2003 Elsevier Science Ltd. All rights reserved.

Keywords: Obesity; Weight stigma; Discrimination

1. Introduction

Obese people are vulnerable to stigma. Although there is not yet sufficient research to determine the exact prevalence of weight stigma, there is evidence of clear and consistent weight prejudice in major life areas of employment, health care, and education (Puhl & Brownell, 2001). Bias has been documented among employers and co-workers (see Paul & Townsend, 1995; Roehling, 1999), teachers (Neumark-Sztainer, Story, & Harris, 1999), physicians (Teachman & Brownell, 2001), nurses (Maroney & Golub, 1992), mental health professionals (Young & Powell, 1985), landlords (Karris, 1977), peers (Latner & Stunkard,

* Corresponding author. Tel.: +1-203-432-7790; fax: +1-203-432-7788.

E-mail address: kelly.brownell@yale.edu (K.D. Brownell).

2001; Neumark-Sztainer, Story, & Faibisch, 1998), multiple media sources (Greenberg, Eastin, Hofshire, Lachlan, & Brownell, 2001), parents (Crandall, 1995), and children as young as age 3 (Cramer & Steinwert, 1998). Obese individuals are assumed to be impulsive and to have a lack of willpower, motivation, and personal control (Puhl & Brownell, 2001; Teachman, Gapinski, & Brownell, 2001).

Stigma is most commonly understood as a social construction influenced by cultural, historical, and situational factors (Dovidio, Major, & Crocker, 2000). A stigmatized person is perceived to be different from normative expectations because of one or more undesirable characteristics, which lead to a devalued or deviant identity in certain social contexts (Dovidio et al., 2000). There is variation across social contexts in what characteristics are stigmatized, but what remains consistent are the social and psychological consequences such as avoidance, rejection, and marginalization.

The visibility and perceived controllability of the stigmatized condition are important determinants of who will be stigmatized and how targets of stigma cope with their compromised status (Crocker, Major, & Steele, 1998). Observable conditions, which are easily identifiable, make a person more vulnerable to social rejection and may become the primary “mark” used by others to define an individual’s identity. Characteristics, which are perceived to be controllable and are the responsibility of the person bearing the stigma, are also more likely to be denigrated (Crandall, 2000; Weiner et al., 2000), and may in turn influence how an individual reacts to negative attitudes from others and copes with consequences of stigma.

Understanding weight stigma and ways people cope with it are important for several reasons. First, being a target of stigma and discrimination is associated with poor health and negative outcomes like underemployment (Guyll, Matthews, & Bromberger, 2001). Obesity is linked to a variety of health problems; hence, it is critical to prevent additional problems created by stigma. Second, with so many individuals now overweight, vast numbers of people could be harmed by stigma. Given that existing weight loss approaches have limited success, many people remain overweight and must cope with stigma for years. Third, little is known about reactions to weight prejudice among obese persons or which types of coping strategies are most helpful in reducing stigma and improving well-being. Fourth, information is needed to develop bias reduction interventions to change negative stereotypes about obese people. Fifth, identification of coping strategies may provide health care professionals with tools to help obese clients and offer parents and teachers ways of helping obese children who may be especially vulnerable to consequences of stigma.

Theoretical work has begun to examine the origins of weight stigma. Attributions of blame have been identified as central components of negative attitudes toward obese people (Crandall, 1991, 1994). Perceived controllability of the cause of obesity may be especially important (Crandall & Martinez, 1996; Rodin, Price, Sanchez, & McElligot, 1989). Little research has examined how this bias can be ameliorated, and what work has been done tends not to be guided by theory and has produced mixed findings. (Bell & Morgan, 2000; Blumberg & Mellis, 1980; Crandall, 1994).

Given the lack of empirical work on coping with weight stigma, it is important to learn from research in other populations of stigmatized groups. Theoretical and empirical research

from other areas such as physical disability and AIDS stigma, along with the large literature on coping theory, may be helpful in understanding coping strategies among obese persons. This work is important to develop coping methods that may help buffer obese persons from prejudice and discrimination while obesity stigma remains prevalent. This paper examines how obese people cope with stigma, and identifies theories and coping methods from other areas of stigma that might be tested in the obesity arena. Methodological challenges confronting the study of coping with obesity stigma will also be presented, along with recommendations for directions the field might take. While it is not yet possible to conclude which models of coping are most applicable to weight stigma, this paper aims to present a variety of coping strategies, which can be further studied with obese persons.

2. The study of coping

Coping is most commonly viewed as efforts to adapt to or reduce distress during stressful events (Lazarus & Folkman, 1984). Work has progressed through several stages during the past four decades (see review by Suls, David, & Harvey, 1996). Psychodynamic theorists perceived coping as defense mechanisms used to minimize internal conflict (Cramer, 1998; Suls et al., 1996). This yielded to Lazarus and Folkman's (1984) transactional model, which emphasized cognitive processes of appraisal in responding to stressful events. An individual determines the nature of a threat, then appraises resources to deal with the situation, then prepares cognitive and/or behavioral actions to cope with the stressor (Lazarus & Folkman, 1984; Lyons, Mickelson, Sullivan, & Coyne, 1998). Problem-focused coping may be used to deal with the stressor itself, or the individual may regulate affective responses to minimize negative emotions through *emotion-focused coping* (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). Emotion-focused strategies may be more common for dealing with unchangeable situations and problem-focused methods for coping with unstable events (Carver, Scheier, & Weintraub, 1989).

More recent work considers affective, individual, situational, and cognitive determinants of coping, and the influence of previous coping experiences on future attempts to manage stress (Suls et al., 1996). New categories of coping responses have been proposed such as cooperative and communal coping (Lyons et al., 1998). Debate has emerged on whether coping strategies can be classified as adaptive or maladaptive, and about coping as a dispositional style versus a situational response (Carver et al., 1989). Although much is unknown about coping, existing theory and research suggests ways to examine coping with weight stigma.

3. A review of coping strategies for obesity stigma

Goffman (1963) acknowledged a variety of deviant labels created by society and the negative consequences of being stigmatized, and noted how victims of stigma might cope with their "spoiled" status. He recognized individuals whose stigma is observable (as in the

case of obesity), and proposed that coping involves dealing with stress in social interactions (Goffman, 1963; Taub, Blinde, & Greer, 1999). Goffman was criticized for proposing that stigmatized individuals ultimately accept their status (see Siegal, Lune, & Meyer, 1998), but his contributions to the field remain important.

Existing studies on weight stigma have proposed and sometimes tested theories to explain how obese individuals cope with their stigmatized identity. These coping strategies can be conceptualized in a number of ways. Coping methods can be problem focused versus emotion oriented, have adaptive or maladaptive consequences for the individual, and be targeted towards changing oneself or the perpetrator of stigma. Their aim can be to avoid or confront stigma (Siegal et al., 1998) and vary to the extent the obese individual accepts or rejects societal beliefs (e.g., that obesity is caused by lack of willpower). All these dimensions are potentially important. Table 1 shows the current status of published research on various coping strategies for dealing with weight stigma. Some theories are supported with more general theoretical work on coping; others are not. Ten potential coping responses to deal with obesity stigma can be derived from the literature. Theoretical and empirical support for each will be addressed. Despite a range of coping methods available for dealing with weight stigma, little information exists on which approaches are effective. This issue will be addressed in the section on methodological issues.

3.1. Confirmation and self-acceptance of stereotypes

Obese individuals may deal with stigmatizing encounters by confirming the negative perceptions ascribed to them by others. Similar in concept to the self-fulfilling prophesy, confirmation highlights the influence of others' perceptions (regardless of accuracy) on one's beliefs and expectations, where the stigmatized target gradually behaves or thinks in ways consistent with stereotypes (Snyder & Haugen, 1995). Cooley's (1956) Looking Glass Theory is similar in proposing that stigmatized people who are aware of others' perceptions internalize them, having an adverse effect on self-concept.

This notion has been applied to stigma of obese persons in an experimental study in which male participants ($n=96$) engaged in telephone conversations with female targets ($n=96$) who were described to males as being either obese or normal weight (Snyder & Haugen, 1995). Men were instructed to become familiar with them and were also given a photograph of an obese or normal weight woman whom they believed was their conversation partner. Female targets received one of several instructions: to simply converse with the male, to converse in a pleasing and responsive manner, or to acquire predictable impressions of their partner. Obese females confirmed males' negative weight-related perceptions in the first two conditions, by presenting themselves as being similar to the stereotyped expectations of their phone partners. The authors proposed that the motivations behind confirmation may be adequate facilitation of social interactions (Snyder & Haugen, 1995).

A related study by Crocker, Cornwell, and Major (1993) assessed reactions among obese and nonobese women ($n=58$) to either positive or negative feedback from a male confederate who rated their attractiveness as a potential dating partner. Overweight women who received negative feedback attributed this outcome to their weight and did not blame the male for his

Table 1
 Published research of coping strategies for dealing with the stigma of obesity

	Coping models									
	Confirmation	Self-protection strategies	Compensation	Personal attribution	Identity negotiation	Confrontation	Social activism	Avoidance/disengagement	Communal coping	Surgery
<i>Studies with obese samples</i>										
Descriptive	✓		✓	✓		✓		✓		✓
Correlational						✓		✓		✓
Experimental	✓		✓							

response (Crocker et al., 1993). Obese women perceived their weight to be a central factor in social outcomes and reacted to stigma by accepting negative stereotypes.

Coping strategies involving confirmation of negative stereotypes would not appear to be adaptive. Crocker et al. (1993) found that confirmation increased negative affect, depression, and hostility, and Fuller and Groce (1991) reported negative self-evaluations by obese women who internalized appearance norms. Quinn and Crocker (1998) argue that overweight individuals who internalize stereotypes about obesity are vulnerable to low self-esteem.

Widespread negative stereotypes about obesity may have increased acceptance of societal perceptions among obese persons. Other stigmatized groups (like racial minorities or disabled individuals) are rarely blamed for their stigmatized status, but obesity is perceived to be under personal control (Crandall, 1994; Crandall & Cohen, 1994). Hence, obese persons may believe their stigmatized identity is temporary and be less inclined to challenge stereotypes because they can escape their status by losing weight. Quinn and Crocker (1998) offer other reasons why obese people might comply with negative stereotypes. These include improving emotional well-being by perceiving oneself as 'apart' from overweight people, feeling more alike to members of society who endorse normative views, and providing motivation to lose weight.

3.2. *Self-protection*

Members of stigmatized groups may use strategies that protect their self-esteem. Stigmatized individuals might be expected to have low self-esteem due to widespread bias, but there is conflicting evidence (Crocker, 1999; Crocker & Major, 1989). Research on the psychological consequences of obesity has mixed findings concerning levels of self-esteem among obese populations (French, Story, & Perry, 1995; Friedman & Brownell, 1995; Miller & Downey, 1999). Crocker and Major (1989) proposed that inconsistency in self-esteem among stigmatized groups may occur because some individuals use self-protective coping strategies to buffer themselves from prejudice.

The first such strategy involves attributing negative feedback to prejudiced attitudes of others. An obese person who does not receive a promotion at work may attribute this to a biased employer rather than to personal characteristics, which protects self-esteem by moving the focus to external causes and not personal abilities.

A second self-protective strategy involves comparing one's outcomes to others in the stigmatized group. Making comparisons with more advantaged out-groups may threaten self-esteem in contrast to comparing oneself to similarly stigmatized, which involve less threatening comparisons (Crocker & Major, 1989). Research on social comparisons and coping is mixed. Some work finds that comparisons to a target that is 'worse off' will increase self-esteem among individuals who seek self-enhancement. In contrast, when motivated by self-improvement people tend to compare themselves to those performing better (Crocker, Thompson, McGraw, & Ingerman, 1987; Taylor, Buunk, & Aspinwall, 1990). Other research suggests that social comparisons can lead to positive or negative self-evaluations, regardless of whether an upward or downward comparison is made (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990). For example, comparing yourself to another who is worse off implies that

you are in a better position than him or her, but that your status could also become worse. An overweight person might feel better when comparing herself to an obese person, or worse if she believes that she may eventually become that obese. Thus, one's affective response may be determined by which information is the focus (Taylor et al., 1990). Factors such as initial self-esteem and the stability of the perceived stressor may influence comparison processes (Taylor et al., 1990), but they have not been examined among obese persons coping with stigma.

A third self-protective strategy is selectively minimizing domains in which one's stigmatized group is perceived as inadequate, and valuing other attributes in which they excel. These coping strategies have surfaced among some obese persons, such as members of the National Association to Advance Fat Acceptance (NAAFA, 1991) who attribute stereotypes to societal attitudes and instead embrace positive attributes of being overweight. Crocker and Major (1989) note that stigmas, which are perceived as personally controllable (like obesity), are more likely to produce self-blame and low self-esteem. Studies examining self-protective means of coping among obese persons are needed.

Research on such strategies among other stigmatized groups may be useful to consider. Siegal et al. (1998) identified "selective affiliation strategies" among men coping with the stigma of AIDS and homosexuality, which involved restricting social networks to individuals who were supportive and accepted their identities. This strategy reduced stigmatizing encounters, exposed individuals to different ideologies about AIDS, provided social support, and established a positive collective identity. Levy (1993) recommends that clinicians help their stigmatized clients participate in positive interactions with other members of the stigmatized group who can affirm their identity.

The self-protective strategies proposed by Crocker and Major (1989) provide one explanation for the mixed findings on self-esteem in obese persons, and suggest a way of coping with stigma that may be applied to obesity. However, many questions remain such as whether self-protective processes are mutually exclusive, whether they are intentional, whether these mechanisms are protective or reflect impression-management techniques, and how these strategies are used by different stigmatized groups (Crocker & Major, 1989). Crandall, Tsang, Harvey, and Britt (2000) propose that self-protective strategies will only improve self-esteem if stigmatized individuals are members of an 'identity-relevant' group. Overweight people may be reluctant to associate themselves with a larger group of overweight people because they hope to eventually discard their stigma through weight loss, and this lack of group membership may be why self-protection strategies are not always effective. In their research, Crandall et al. (2000) found that self-protective strategies were only correlated with self-esteem when individuals were legitimate members of a group-based stigma, and not when they were given a stigma label without a stigmatized group membership. Although not tested with obese populations, this work implies that self-protective methods may only be useful if an overweight person feels that his or her stigma is linked to a meaningful group identity.

Crocker (1999) suggests that self-esteem among stigmatized groups is largely situation-specific and depends on the meanings of stigma, which are created by both stigmatized and nonstigmatized individuals. This 'situational constructionist' view suggests that self-esteem

of stigmatized individuals can be higher or lower than nonstigmatized persons do and may change across situations. With obesity, Crocker proposes that self-esteem of overweight people is influenced by the attributions about the causes of obesity. In instances where causes are attributed to personal control, obese people may internalize these perceptions and accept the rejection that is placed upon them. In situations where uncontrollable causes of obesity are salient, self-esteem may be higher and rejection may be attributed to external prejudice rather than to personal flaws. This perspective fits well both with attributional theories of weight stigma and with evidence indicating variation in the levels of self-esteem among overweight people. However, it is in contrast to the view of [Crandall et al. \(2000\)](#) who propose that self-esteem increases when self-protective strategies remind the stigmatized individual of his or her identification with the larger social in-group. Further research testing these competing views with obese populations would be beneficial.

3.3. Compensation

Overweight people may try to compensate for negative consequences of their weight by becoming skilled in activities for which they might not otherwise receive positive attention ([Degher & Hughes, 1999](#); [Taub et al., 1999](#)). For example, in a study of 24 male college students with physical disabilities, involvement in physical and sport activities was reported as a primary coping strategy to deal with stigma ([Taub et al., 1999](#)). Respondents reported that participating in physical activity allowed them to demonstrate their physical skills in ways that challenged societal assumptions about their disabilities, and helped to show others their competence in socially valued activities.

[Miller and Myers \(1998\)](#) note primary and secondary compensation strategies used to cope with weight stigma. Primary compensation is an attempt to prevent prejudice by increasing effort or using new skills to achieve desired goals in social interactions ([Miller & Myers, 1998](#)). Participants in one study indicated that they had previously compensated for stigma by being assertive, friendly, and outgoing in social situations to improve others' perceptions of them ([Myers & Rosen, 1999](#)).

Secondary compensation protects oneself from stigma after it occurs by changing one's perceived role in causing negative outcomes. This could involve blaming others for their biases or comparing outcomes to other overweight people ([Miller & Myers, 1998](#)). As stigmatizing outcomes increase, so do obstacles to successful functioning. If a person's skills to confront prejudice remain the same over time, there will be inadequate compensation to overcome increased stigmatization. Improving skills used in these situations is needed to achieve adaptive outcomes. In the case of obesity, obese individuals may need to learn to compensate for the negative outcomes posed by others' weight prejudice ([Miller & Myers, 1998](#)).

Some research supports compensation for weight stigma. Miller and colleagues assessed obese and nonobese women ($n = 155$) in telephone conversations with individuals who they were told either could or could not see them ([Miller, Rothblum, Felicio, & Brand, 1995](#)). Obese women received lower ratings on social skills when telephone partners could see them, but only if the women believed that their partners could not see them. When obese women

believed that they were visible, they rated themselves as more likeable and socially skilled than nonobese women (Miller et al., 1995). While self-ratings did not differ between obese and nonobese women when they believed they could not be seen, obese women increased their self-ratings and nonobese women decreased their self-ratings when they believed they were visible to partners. This suggests that obese women worked to appear more positively when they were aware that they had to compensate for negative reactions that their visible weight elicited in their partners (Miller et al., 1995), as their self-ratings reflected their intentions during the conversation.

Hughes and Degher (1993) studied compensation strategies in obese adults, and found that involvement in community organizations increased social acceptance, and engaging in excessive “helping” behaviors increased their likability. Whether compensation strategies are helpful in dealing with stigma may depend on accurate situational attributions and on adequate skills to compensate sufficiently (Miller & Myers, 1998). Obese individuals may be aware that weight prejudice affects their interactions, but it may be difficult to determine how much effort is needed to compensate appropriately (Miller et al., 1995). Accurately perceiving whether it is one’s own behavior or another’s stereotypical attitudes in question is difficult, and perceptions are likely influenced by considerable situational variation. Individuals may employ compensation inadequately when they perceive weight stigma to be low, or try too hard in which over-use of skills could lead to negative reactions (Miller & Myers, 1998; Miller et al., 1995).

Degher and Hughes (1999) found that compensation was most used by obese individuals who had been obese since childhood. Living with stigma since childhood may lead to internalization of expectations and stronger pressures to achieve success in other areas to be accepted (Hughes & Degher, 1993). Additional research is needed to determine whether compensation strategies provide a way for obese people to achieve more favorable perceptions of themselves when they are confronted with negative attitudes.

3.4. Personal attribution

The ways in which obese individuals explain their overweight is a means of coping. Degher and Hughes (1999) reported two types of attributional strategies used by all obese participants in their study to explain the reasons for why they were obese. First, participants often admitted that their weight status was unacceptable, but denied responsibility for becoming overweight; either because it was someone else’s fault, or a result of events that they could not control, such as medications with side effects, pressures to eat from family members, or genetics. Second, when providing reasons for remaining obese, participants accepted responsibility for being overweight, but provided socially acceptable reasons for their behavior, such as eating to cope with personal tragedy, social pressures, or family obligations, or eating to punish themselves. In both types of attributions, obese individuals defended themselves by providing permissible reasons for their weight (Degher & Hughes, 1999). Whether these strategies are rationalized defenses or reflect real reasons that obese people are eating and gaining weight is not known, and additional research is needed to examine these attributions more closely.

In a society that perceives obesity to be within personal control and caused by willful behaviors like personal indulgence or laziness, the above attributions may help obese persons obtain acceptance from others. Because attributing negative consequences to internal causes is more likely to lead to poorer emotional outcomes (e.g., low self-esteem) than if attributed to external factors (Miller & Major, 2000), strategies which focus negative attributions on external sources may be helpful.

Similar attribution strategies were documented by Siegal et al. (1998) among men dealing with HIV/AIDS stigma, who provided explanations for their diagnosis that shifted the cause of their HIV from less acceptable sources (like homosexual relations and drug use) to more permissible causes like blood transfusions. This echoes the study by Hughes and Degher (1993), in which obese participants did not deny their stigmatized status, but tried to portray themselves more as victims, implying that they should not receive social sanctions for their stigmatized status. Siegal et al. also reported that some respondents accepted responsibility for their stigma but tried to distance themselves from other individuals with HIV to show that they were not like “other” gay men who may have contracted AIDS through promiscuity. In contrast, others agreed that their behavior was inappropriate and attempted to seek social acceptance by apologizing for their behaviors. These kinds of personal attributions have not been noted among obese people but may be plausible considering society’s blame.

Levy (1993) describes the process of justifying one’s condition as ‘framing stigmata.’ He recommends that clinicians help clients frame their status in ways that improve social functioning, and states that both the definition and presentation of the stigma are important to consider. More research is needed to explore whether personal attribution strategies do in fact increase social acceptance or buffer against threats to self-esteem among obese individuals.

3.5. *Negotiation of identity*

Another framework for examining coping with weight stigma is negotiation of social identity. Deaux and Ethier (1998) describe identity negotiation as adjusting one’s self-image in response to situational demands and, according to this theory, a social identity comes from membership in a category and the associated attributes. Due to prejudice, an individual’s category may become stigmatized, creating a negative social environment. This may motivate individuals to adjust their identity to obtain an affirming self-image (Deaux & Ethier, 1998).

There are a number of strategies of identity negotiation proposed by Deaux and Ethier (1998), which involve either identity negation (separating oneself with one’s social identity) or identity enhancement (reaffirming or extending an already existing identity). These strategies have not been tested with weight stigma but are presented to determine their applicability to the stigma of obesity. The authors propose that perception of threat is the primary mediator in a target’s decision to use a particular negotiation strategy (Deaux & Ethier, 1998).

One negation strategy is *eliminating* one’s social identity, which requires both a negative evaluation of the identity and the ability to escape the category (Deaux & Ethier, 1998). Obese individuals may share negative evaluations of their weight, but it is difficult to escape

the visible condition of obesity without successfully losing weight. Thus, the usefulness of this strategy for obese persons may be limited.

The second negation strategy, *denial* of identity, may be more applicable. Denial involves situations where the target does not identify with external stereotypes (Deaux & Ethier, 1998). An overweight person who is labeled as being lazy by others may perceive him or herself to be an energetic person. A third option involves *decreasing the importance* of a particular identity in threatening situations. Deaux and Ethier (1998) suggest that individuals who cannot escape their identity, or wish to maintain the identity around others who perceive it to be important, may retain their identity but minimize it in particular circumstances. An obese woman may minimize attributes associated with her 'fat' identity with thinner co-workers, but may accept the identity around family members who are also obese.

In contrast to negation strategies, identity enhancement techniques such as *reaffirmation* aim to reassert one's identity in response to threat. Obese persons can celebrate their weight as a way of coping with negative stereotypes. *Remooring* involves actions like participating in events to enhance an obesity identity. Members of NAAFA (NAAFA, 1991) do this to change negative attributions into acceptance of obesity. *Intensified group contact* involves affiliating with others who share the social identity. People might participate in support or advocacy groups, or socialize together as a way of learning new coping techniques, increasing self-esteem, or even combating discrimination (Deaux & Ethier, 1998).

Which strategies are most likely to be adopted by stigmatized persons depend on the strength of their identification with the category, the amount of experience with prejudice, and the ways they define their role in the social group (Deaux & Ethier, 1998). This theory has primarily been examined with racial minority samples, and while not been tested with obese persons, may be applied to a range of situations relevant to weight stigma. It will be useful to test these strategies and to examine what factors mediate identity negotiation by obese people.

3.6. Confrontation

Directly confronting the 'perpetrator' of stigma can lead to feelings of empowerment and potentially stop stigmatizing behaviors. Confrontation involves challenging the reasons for and consequences of another's behavior (Levy, 1993). In a study of 23 obese adults, respondents reported using both verbal assertion and physical aggression in response to individuals who stigmatized them (Joanisse & Synnott, 1999). The majority of men reported making formal complaints to store managers when store employees were rude to them, and 75% of the sample indicated that they responded with witty comebacks or insults when stigmatized. Most participants also reported using verbal threats to end relationships with others if negative comments about their weight did not stop. Physical aggression was much less common, but two respondents reported engaging in minor acts of aggression in reaction to stigmatizing comments. Participants reported that asserting their rights and challenging the stigmatizer was the best strategy in coping with biased individuals.

Little other work has assessed confrontation in obese individuals, and research is needed to determine whether confrontation ends further discrimination and if it enhances well-being. Levy (1993) notes that stigmatized people may feel increased confidence even if the

confrontation is unsuccessful, but adds that they must understand the potential consequences and be emotionally prepared to assert themselves.

3.7. *Social activism*

People may participate in public groups to protest weight stigmatization as a way of coping. The NAAFA (NAAFA, 1991) is one such advocacy group that promotes size acceptance, fights weight discrimination, and publicly campaigns to challenge stigma. While such groups can have long-term policy impacts, members are also provided with a sense of community, acceptance, and support. Siegal et al. (1998) identified social activism as the most proactive method used in their study by gay men to deal with the stigma of AIDS.

Education about the stigma of obesity is another way to challenge attitudes. Siegal et al. (1998) found that respondents with AIDS educated others about their stigmatized status to counteract discriminatory attitudes about AIDS and to provide them with socially valued roles. In contrast, Link and colleagues found that psychiatric patients who educated others about their stigmatized status did not alleviate negative labels and felt continued devaluation, discrimination, and withdrawal (Link, Mirotznik, & Cullen, 1991). It is unclear whether this would be the case with obesity, and further research will need to test whether public education efforts can be helpful in coping with weight stigma.

Social activism may be most likely used when stigmatized individuals believe that their status is unchangeable (Deaux & Ethier, 1998). Obesity is often perceived to be controllable, yet the ineffectiveness of weight loss efforts and the multiple factors contributing to obesity may make it seem otherwise. Social action is beginning to take place with the gradual passing of antiweight discrimination legislation. However, trying to eliminate prejudice by challenging social stereotypes is difficult due to the automatic and ingrained nature of stereotypes (Major, Quinton, McCoy, & Schmader, 2000). Benefits from social activism may result more from personal connections than from actual social changes. Examining whether there is a relationship between amount of stigmatization experienced and certain types of coping responses used (such as social activism versus nonassertive reactions) will help clarify if and why activism strategies are used.

3.8. *Avoidance and psychological disengagement*

Experiencing weight stigma may lead to avoidance of social interaction as a way of escaping devaluation. Swim, Cohen, and Hyers, (1998) propose that stigmatized individuals weigh the costs of entering potential threatening situations and then decide whether to enter or avoid. Low confidence in ability to cope with prejudice may promote avoidance (Swim et al., 1998). One study of obese subjects found that avoidance responses correlated with higher levels of distress (Myers & Rosen, 1999), which parallels research of Link et al. (1991) who reported increased psychological distress among psychiatric patients who used avoidance. Reasons for this may be resulting isolation, inability to express emotions, and lack of social support that come with avoiding social situations. Hughes and Degher

(1993) observed avoidance to be common among obese individuals in their study, who avoided situations like going shopping or to the beach where they felt observed. Others attempted to avoid their status by ignoring their weight through conscious efforts not to think about it.

One form of avoidance is psychological disengagement from stigmatizing areas of life. Disengagement uncouples self-esteem from performance in certain domains (Major & Schmader, 1998). One means of disengagement is ‘devaluing,’ which involves placing less value on areas in which a group is stigmatized and more value on areas in which they can succeed. An obese person might devalue stereotypes attributed to obesity, like unattractiveness or poor self-discipline, so that his or her self-assessment is not based on these attributes. The second process, ‘discounting,’ involves “discrediting the discreditor” (Siegal et al., 1998), perhaps attributing negative feedback to prejudiced attitudes.

Over time, disengagement from negative feedback may result in stigmatized individuals chronically disengaging in multiple areas of living, and it may erode motivation to succeed in areas from which they are disengaging (Major & Schmader, 1998). Successful disengagement may be difficult for obese persons given widespread perceptions that obesity is under personal control, where an overweight person may have difficulty discounting negative feedback and may be more likely to engage in self-blame (Major & Schmader, 1998). Disengagement strategies have primarily been examined by assessing intellectual abilities among racial minority groups (see Major & Schmader, 1998). Research is needed to explore whether disengagement is used by obese individuals and whether it is a useful coping strategy.

3.9. Communal coping

Some work has proposed coping through cooperative problem-solving processes in which several individuals share their resources (Lyons et al., 1998). This may be used when individuals feel that a stressor is a shared problem, even if it produces different consequences for those involved. Lyons et al. (1998) describe three components necessary for communal coping: beliefs that cooperating with others will be useful, shared communication about the problem, and a collaboration among individuals to produce strategies to confront the stressor.

Although communal coping has not been examined with social stigmas or obese populations, the model may have several advantages. Communal coping allows individuals to obtain additional resources, provides social support, may increase self-efficacy, can help to maintain established relationships, and can provide social validation and integration (Lyons et al., 1998). It may be useful to consider collective coping processes that obese persons could use to deal with stigma, whether this involves coping efforts with friends, family, or members of other social groups. Negative consequences of obesity stigma may extend to individuals who are associated with the obese person, providing additional motives for communal coping. Research in this area seems worthwhile to determine how communal coping processes operate, and whether it can enhance coping resources and relationships for stigmatized people.

3.10. Losing weight

Individuals who believe their stigmatized status is controllable may attempt to remove themselves from the stigmatized group; hence many obese people seek to lose weight (Miller & Major, 2000). Obese people who believe they should be able to lose weight may blame themselves for stigmatizing events, which may decrease the use of other coping strategies that could otherwise be practiced (Miller & Major, 2000). Joannis and Synnott (1999) suggest that most obese people have internalized social stereotypes about obesity at some point in their lives. The authors define internalization as agreeing with social stereotypes, believing that weight is the source of their problems, and continually attempting to lose weight to resolve social dilemmas. In their study of 23 overweight adults, all had tried multiple diets despite being aware that these efforts were unsuccessful and might result in weight gain (Joannis & Synnott, 1999).

Obese individuals may also pretend to comply with pressures to lose weight to reduce negative attention from others. Degher and Hughes (1999) describe ‘face compliance’ when an obese person agrees to pressures from others to lose weight, but has no intention of doing so. The authors noted that face compliance was associated with poor results of weight loss, presumably because their public “dieting” image did not correspond to private motivations (Hughes & Degher, 1993). Face compliance may quell social pressures, but does not lead to identity change.

Increasing numbers of people attempt to escape stigma and improve health with obesity surgery. Little research has addressed the relationship between weight loss surgery and stigmatization, but self-report studies have showed substantial changes in perceptions of discrimination after surgery. Rand and MacGregor (1990) examined perceptions of discrimination among morbidly obese patients ($n=57$) before and after weight loss surgery. Before their operations, 87% of patients reported that their weight prevented them from being hired for a job, 90% reported stigmatization from co-workers, 84% avoided being in public places because of their weight, and 77% reported daily depression (Rand & MacGregor, 1990). Fourteen months following surgery, every patient reported reduced discrimination, 87–100% of patients reported that they rarely or never perceived prejudice since the operation and 90% reported substantially increased cheerfulness and confidence (Rand & MacGregor, 1990).

A similar study of obese patients ($n=36$) undergoing gastric restriction surgery for morbid obesity indicated that 59% of patients requested the surgery for social reasons such as embarrassment, and only 10% were obtaining surgery for medical reasons (Peace, Dyne, Russell, & Stewart, 1989). Following the operation, patients reported improved interpersonal functioning (51%) and occupational functioning (36%), and positive changes in leisure activities (64%). These studies are limited because of self-reports and self-selected samples, but it is important to consider the reduction in perceptions of prejudice in important life areas and the influence of social perceptions in motivating these surgery decisions (Kral, Sjostrom, & Sullivan, 1992). Whether obese individuals are more likely to seek surgery when previous coping strategies have failed is not known and needs to be examined.

4. Factors that affect coping strategies

There are clearly a variety of choices for coping with weight stigma and discrimination. Both individual and situational factors will influence the choice of strategy and its potential effectiveness. Currently, demographic and other causal variables, which may increase vulnerability to weight stigma, are not known. Whether there are gender, age, or ethnic differences in how obese persons experience and cope with weight stigma have not been empirically addressed or sufficiently tested. Beyond being obese, factors such as body image, family history of obesity, and health status are a few of many potential variables, which may also affect these processes, but at present there is no research to address these issues. Although the literature addressing moderating factors of coping has not addressed weight stigma, possible variables will be highlighted because of their potential importance.

4.1. Gender

Men and women may perceive stressors differently (Lyons et al., 1998) and use different coping strategies. Hobfoll, Dunahoo, Ben-Porath, and Monnier (1994) found that women used more social support coping strategies in professional situations and more assertive coping strategies in interpersonal situations, whereas men used more aggressive and antisocial coping responses. Women more often seek social support than men (Carver et al., 1989) and use emotional reactions to stress, whereas men are more likely to respond directly to the stressful event (Billings & Moos, 1984; Endler & Parker, 1990).

How gender differences influence coping with weight stigma is not known. Women report more weight stigmatization than men do and more stigmatization at lesser degrees of being overweight (Cossrow, Jeffery, & McGuire, 2001; Crocker et al., 1993; Fuller & Groce, 1991), which may affect choices of coping strategies. Although Myers and Rosen (1999) found no gender differences in coping attempts among obese adults, other descriptive work hints at possible gender differences in areas such as confrontation strategies (Joanisse & Synnott, 1999). Research is needed to examine the relationship between obesity, gender, and coping methods to see whether women and men approach weight stigma differently.

4.2. Perceived control of stigma

Perceptions of control over stigma is related to problem-focused coping and less perceived control related to emotion-focused coping (see Major et al., 2000). Carver et al. (1989) found that individuals who perceived their stigma as likely to change used more active and social support coping strategies than those who had accepted their situation as unchangeable. It could be predicted that obese persons who attribute some personal control over stigma-related events or who believe that negative societal attitudes can be changed may use problem-focused efforts more than emotion-focused strategies.

4.3. *Self-perceived problem solving ability*

The extent to which a person has confidence in their coping and problem solving abilities may influence coping processes. Individuals who are confident in their problem-solving abilities perceive more coping options, and are more likely to use problem-focused strategies and less emotion-focused strategies than those with poor perceived abilities (MacNair & Elliott, 1992). Positive perceptions of problem-solving abilities have been associated with less self-blame, increased self-concept and confidence in decision-making ability, and higher levels of hope (MacNair & Elliott, 1992). Whether these results extend to obese individuals remains to be tested.

4.4. *Personality*

Personality differences may moderate preferred coping strategies. Some research has not found a predictive relationship between personality dispositions and coping (Folkman & Lazarus, 1988), but other work has found associations of the Neuroticism personality trait to confrontational coping (Bolger & Zuckerman, 1995). Carver et al. (1989) examined coping and personality dimensions and found that active coping strategies were positively related with personality characteristics of optimism, hardiness, and Type A behavior, whereas denial and disengagement strategies were related to trait anxiety and negatively associated with optimism. No work has examined the relationship between personality and coping with weight stigma.

4.5. *Negative mood expectancies*

Beliefs that an individual has about his or her ability to alleviate a negative mood (negative mood expectancies, NMR) may influence coping (Catanzaro & Greenwood, 1994). Those with high NMR expectancies have more confidence they can terminate a negative mood when it occurs. Catanzaro and Greenwood (1994) found that NMR expectancies were positively correlated to problem-focused coping and negatively associated with avoidance. NMR expectancies affect situational coping responses, and are related to depression and anxiety (Catanzaro, Wasch, Kirsch, & Mearns, 2000). NMR expectancies predict coping outcomes when individuals use emotion-focused coping to deal with perceptions that a stressor is unchangeable. Given that some obese persons may accept their stigmatized status as unchangeable after failing to lose weight or changing negative attitudes of others, this may be an important variable to address.

4.6. *Just world beliefs and the Protestant work ethic*

Just world beliefs encompass a world view that people get what they deserve and that hard work is rewarded. These beliefs shield individuals from the reality that the world is sometimes unjust (Lerner, 1980). Tomaka and Blascovich (1994) found that individuals with high just world beliefs appraised stressors as challenges within their coping abilities,

reported less stress, and demonstrated greater task performance than those with low just world beliefs who perceived the stressor as a threat beyond their coping abilities, reported more stress and showed poorer performance.

Although these effects need to be examined with weight stigma, this is an important variable to study for several reasons. First, just-world beliefs may contribute to negative stereotypes held about obese people (Crandall, 1994; Crandall & Cohen, 1994). Perceptions about the controllability of weight are translated to beliefs that obese people ‘get what they deserve’ and that they should lose weight. Second, because some obese individuals believe they deserve their stigma (Crandall, 1994), it is important to examine whether positive coping appraisals and outcomes associated with high just world beliefs are also experienced by them.

Quinn and Crocker (1999) examined beliefs in a Protestant ethic (hard work leads to success and failure results from lack of self-discipline or self-indulgence) in obese women. Overweight women who endorsed this belief had more psychological distress than those who did not. Protestant ethic beliefs were negatively associated with well-being among overweight women but positively associated with well-being among average weight women. These beliefs may be a risk factor for distress among obese women because they result in attributions of responsibility for outcomes like inability to lose weight or failure to meet societal weight standards (Quinn & Crocker, 1999). Given the similar ideologies of just world beliefs and beliefs in Protestant ethic, the effect of these factors on coping responses and the process by which they influence the well-being of overweight individuals deserve further attention.

4.7. *Self-esteem*

Self-esteem has been documented as an important predictor of how individuals cope with stress (Bandura, 1986). Social exclusion theory posits that self-esteem influences a person’s perception of his or her inclusionary status in a social group, and that events which promote social exclusion will threaten self-esteem (Leary, 1990). Leary (1990) proposes that individuals with low self-esteem are likely to perceive threats to inclusion, but this remains to be tested among obese people. Individuals with high self-esteem may be likely to discredit out-groups in order to maintain self-esteem when confronted with an evaluative threat to their identity (Crocker et al., 1987).

4.8. *Age*

It is not known whether coping differs for obese individuals who have been overweight since childhood and who have dealt with stigma for longer compared to adult-onset obese individual, or whether coping responses differ for obese children and adults. Research examining coping in children is limited, but work that has studied general appraisals of stress in youth may be informative for understanding how obese children cope with stigma. One study assessed predictors of threat perceptions to daily stressors among elementary school children, and found that both maternal and paternal acceptance of the child were related to lower perceptions of threat and positively influenced coping (Kliewer, Fearnow, & Walton,

1998). Similar work suggests that parental acceptance is related to children using more problem-solving skills and being less fearful when confronting stressors (Kliewer, Fearnow, & Miller, 1996).

Some research suggests that parents share negative weight stereotypes that they communicate to their overweight children (Adams, Hicken, & Salehi, 1988; Crandall, 1995; Pierce & Wardle, 1993). Some children may perceive their parents disapproval, which could have negative implications for coping.

4.9. Social network/group identity

The degree to which an individual identifies with a larger social group can affect coping. Stigmatized people differ in the extent that they feel members of a stigmatized group and participate in that group (Major et al., 2000). Individuals with a strong group identity are more likely to use collective coping strategies like social activism (see Major et al., 2000). Individuals without a social network may use more avoidance than individuals who can obtain social resources from their group and who are in turn more likely to use problem-focused strategies (Billings & Moos, 1984; Holahan & Moos, 1987). The relationship between a positive group identity and specific coping strategies has not been examined with obese people. Whether obese individuals who identify with a collective identity use social or proactive coping strategies more than individual strategies needs to be explored.

5. Methodological issues

5.1. Problems of current research

With inadequate empirical attention on coping strategies for weight stigma, it is not yet possible to predict which models of coping are most appropriate for obese individuals. Only one published study has systematically assessed both stigmatizing experiences and coping responses among obese individuals. Myers and Rosen (1999) gathered cross-sectional data from 146 obese patients (112 women, 34 men) who indicated whether and how often they had experienced 50 possible stigmatizing events and used 99 coping responses. Stigmatization was common, and a variety of coping strategies were reported, including problem solving, confrontation, social support, avoidance, wishful thinking, and thought modification. Certain types of coping, such as self-blame, isolation, and avoidance were associated with higher distress on measures of self-esteem, body satisfaction, and mental health symptoms, whereas others like self-acceptance and positive self-talk were somewhat associated with more positive psychological adjustment. No coping style was found to be particularly adaptive, but coping responses increased in frequency directly in proportion to increased stigmatization. Individuals who were severely obese reported more stigmatization experiences, although beyond the level of “severe” obesity the relationship between weight and stigmatization was no longer significant.

Because this study was cross-sectional, correlational, and used self-report measures, it cannot be determined whether specific coping styles reduce stigmatization or in what types of situations different coping methods are likely to be helpful. Still, this study is the first to address multiple coping strategies among obese persons, and the results suggest that a variety of coping methods are likely being used across and within stigmatizing situations.

Apart from this study, most research has been descriptive, with little indication of which coping strategies are unique to stigma situations or used with multiple life stressors, and whether certain strategies are used more often or in particular situations over others. No randomized trials have been published to help clarify the relationships between weight stigmatization and resulting coping strategies, and there is little experimental research on these topics. In addition, coping strategies used by obese persons have not been compared to those of other stigmatized groups or control groups. Many studies have small sample sizes, and typically assess only one coping strategy or use one measure of assessment. Studies also varied in the weight of their subjects, which ranged from overweight to severely obese participants. With Myers and Rosen's (1999) finding that coping methods are used more frequently as one becomes more obese, this is an important area for further research.

A neglected area of research that will be fundamental to the identification of effective coping strategies is work that examines the relationship between weight stigma and distress, mood, self-esteem, and general well-being in populations of obese persons. While the literature indicates that obese people are discriminated against in multiple domains of living, substantially less work has studied psychological correlates and mental health outcomes of weight stigma, with the exception of several recent correlational studies (e.g., Myers & Rosen, 1999). We can speculate that weight stigma will increase negative affect and lower self-esteem and quality of life among obese individuals. This has important implications for the likelihood of certain coping strategies (such as internalization of stigma) being adopted. However, without increased empirical attention to these relationships, these questions are currently unanswerable.

Another problem of current work on coping styles is that some strategies appear conceptually similar despite different labels. For example, compensation strategies (Degher & Hughes, 1999; Miller & Myers, 1998) seem similar to self-protection coping methods, both of which serve to maintain self-esteem. Deaux and Ethier's (1998) identity enhancement strategies are conceptually akin to coping methods of social activism. It may be beneficial to form a fewer number of categories of coping strategies to facilitate easier identification of topics for study. For example, "self-protection" coping strategies could become broadened into a larger category to include compensation techniques, personal attribution strategies, and psychological disengagement methods of coping, all of which are strategies which aim to buffer self-efficacy. Another category might be "self-acceptance" methods of coping with stigma, which could include confirmation of stereotypes and coping through weight loss efforts. A third category could be "cooperative" coping strategies with social activism and communal coping methods as subtypes. Empirical comparisons of coping styles are needed to help develop broad categories.

While all coping methods presented in this paper are potentially important, it is our opinion that certain coping strategies deserve the most immediate attention. Given the pervasive

societal values of thinness and negative attitudes toward obesity, obese people may be especially vulnerable to internalization of stigma. Internalization may lower self-esteem and hinder the use of other helpful coping strategies, so self-acceptance coping methods such as personal attributions, and confirmation strategies should be studied to better understand the cognitive and affective processes. It is also important to investigate social and communal coping processes because so many people may be affected by weight stigma. If communal coping strategies have adaptive consequences, new outlets can be made available to obese people as sources of social support and acceptance.

5.2. Measurement of coping

Other methodological issues may be important to advance research in this area. One critical issue is the measurement of coping. Despite the existence of many self-report measures of coping, the structure of coping is still not well understood (Suls et al., 1996). Well-known coping measures like the Ways of Coping Questionnaire (Folkman & Lazarus, 1980, 1988), the Multidimensional Coping Inventory (Endler & Parker, 1990), and the COPE Inventory (Carver et al., 1989) assess different domains of coping, have different theoretical approaches, and vary to the extent they assess coping dispositions versus specific situations. Measures of coping have also produced differences in their associations with adaptive or maladaptive outcomes. For example, some work has suggested that emotion focused strategies may lead to maladaptive psychological outcomes (Endler & Parker, 1990), although this has not been assessed in obese individuals. Other research suggests that measures of distress may be largely confounded with measures of emotion-focused strategies (see Suls et al., 1996). There is no consensus of which approach to measure coping is best. This may in part be due to inconsistent ideas about the structure of coping processes, or that the optimal means of coping varies by person, situation, or their interaction.

5.3. Determining effectiveness of coping

Another key issue is the effectiveness of various coping strategies on psychological functioning. Some work has associated problem-focused coping and adaptive outcomes, and emotion-focused and avoidance coping with maladaptive functioning (Billings & Moos, 1981; Holahan & Moos, 1987). With weight stigma, little research has examined psychological outcomes, and most outcomes are unknown. Myers and Rosen (1999) reported that strategies of avoidance and isolation were related to higher levels of distress among obese participants but failed to find associations between other strategies and adaptive outcomes.

Because an individual's choice of coping strategy may not correspond to "adaptiveness" or to previous successful outcomes with that coping strategy, trying to determine the usefulness of coping methods is a challenge. Methods that might be "effective" in coping with certain stigmatizing situations may be less helpful in others, and some methods may be adaptive in the short-term but not over longer periods. Whether individuals can accurately recall both the method of coping used and resulting emotional or situational outcomes is also questionable. Although memory bias can be addressed by questioning individuals about their

coping response to a recent stressor, obese people face stigmatization throughout their lives, which may increase vulnerability to inaccurate recall.

The meaning of effectiveness is also complex. Are strategies to cope with stigma effective if future stigma is reduced? Should effectiveness only be examined with respect to psychosocial functioning resulting from coping efforts? How should short-term versus long-term consequences of coping influence definitions of effectiveness? If an obese individual engages in coping strategies that increase distress but ultimately result in motivation for weight loss, is this adaptive? If an obese person copes with stigma using strategies that increase self-esteem (e.g., social activism) but subsequently result in weight gain and additional medical risks, was this strategy helpful? Coping may need to be categorized on the basis of both effectiveness and adaptiveness. It is imperative to determine which coping strategies will most likely reduce stigma and improve emotional outcomes.

Although there is an absence of empirical work on this topic with weight stigma, we believe that effective coping strategies will prevent perceived stigma and increase well-being. Potential other consequences of coping, such as weight loss efforts (including surgery) to avoid stigma, may be desirable for health reasons, but are not the only means of improving well-being. This is not to suggest that weight loss or lifestyle changes are unimportant, but that being overweight and coping successfully with life can occur together.

Numerous studies are needed to address these empirical and conceptual questions. [Table 2](#) outlines areas of research, which we believe are necessary directions in which to take these efforts and to help guide this emerging field of study.

We believe there are several key pathways for the field to pursue.

(1) Although the visibility and perceived controllability of obesity make it different from many other stigmas, it will be helpful to understand coping strategies that have been studied in other stigmatized groups to identify new methods and theories for empirical testing in obese samples.

(2) It is likely that more than one way of coping with weight stigma will be helpful. Research must be done to discover which strategies are adopted by obese persons and whether these are adaptive. This requires theoretical consideration of how to conceptualize effectiveness of coping strategies.

(3) Methodological gaps in the literature require attention. Necessary improvements in methodology include the use of larger sample sizes of obese individuals, samples of males and females, longitudinal studies, use of control comparisons, and multidimensional assessment of coping responses for stigma experiences.

Only one treatment study has specifically targeted ways of coping with stigma in therapy for obese patients ([Robinson & Bacon, 1996](#)). The program addressed the origins of negative attitudes toward obese people, reduced self-blame by counteracting bias about obesity, and taught clients to challenge stereotypes and to be assertive when confronted with prejudice. Patients improved on all outcome measures at the end of treatment, including lower levels of depression and fat phobia, fewer restrictions in daily activities, and higher self-esteem. More studies of this kind are needed.

(4) Research will need to address individual differences and situational factors, which affect coping by obese people. This includes studying demographic, personality, and

Table 2

Research questions for future empirical work on coping with obesity stigma

Demographic factor	Are there gender differences in frequency and/or types of coping processes used by obese individuals? Is age of onset of obesity a predictor of which coping methods are used and/or the effectiveness of these strategies? Does degree of obesity predict frequency and/or types of coping strategies used?
Conceptual factors	How should the structure of coping with obesity stigma be conceptualized? What criteria should be used to compare coping models to deal with obesity stigma? What additional models of coping should be applied to the domain of obesity stigma? How should adaptiveness of coping strategies to deal with obesity stigma be conceptualized and measured?
Stigma and discrimination factors	In what types of discrimination/stigmatization experiences (e.g., employment, health care, education) are coping strategies most frequently needed? Are certain coping strategies preferred in particular stigmatizing situations? Does frequency of stigma experiences affect number and types of coping methods used? Which types of coping strategies are most likely to reduce future stigmatization? Do certain stigma coping strategies produce positive reactions from others?
Individual difference factors	How does level of self-esteem influence coping strategies used by obese individuals? Do just world beliefs affect coping strategies among obese people? What, if any, personality characteristics of obese persons are related to choice of coping? Does perceived control of obesity stigma affect coping responses? Does perceived control of weight affect coping responses? Is mood a predictor of coping methods among obese persons? How does social group membership affect coping strategies used by obese individuals?
Eating behaviors	Is history of dieting related to use of particular coping strategies among obese people? Do obese individuals who are currently dieting respond to stigma differently than nonrestricting obese individuals? Does presence/frequency of binge eating affect coping methods used by obese persons? Can coping skills training to deal with stigma affect weight loss or outcomes in treatment for binge-eating disorder?

psychosocial characteristics of obese persons, whether coping responses are influenced by membership in other minority or stigmatized groups, and the extent to which stigmatizing conditions interact with these variables.

6. Conclusions

It can be concluded that while many important research questions have not yet been addressed, there is enough existing literature about coping with weight stigma to initiate research in a variety of potentially informative areas. This review has presented different coping responses which are relevant to the management of the stigma of obesity, all of which may have utility in various stigmatizing situations. A profile for potential classification of these strategies has also been proposed, which helps to conceptualize coping strategies according to perceptions of societal beliefs about weight, the target of change, the extent to

which one avoids or confronts stigma, and potential psychological outcomes that may occur with these strategies. It is our hope that this profile may help guide additional research for different coping methods. Although several of the coping strategies reviewed have been specifically applied to obese individuals, this research has been primarily descriptive in nature. On the basis of studies that have been presented in this paper, it is clear that there are significant gaps in knowledge, leaving multiple pathways open for research directions and numerous questions to be answered for this field of study to progress. Thus, it will be beneficial to learn from the methods used in more rigorous research with other stigmatized groups to inform future methodology with obese populations.

With one-third of Americans now obese, the research reviewed in this paper has implications for people who are working with obese individuals, for those who are conducting research about obesity, and for those who are confronting weight stigma themselves. However, without changes in societal attitudes toward obesity and the widespread weight prejudice that exists, coping strategies to deal with stigma may have limited success. No matter how many coping strategies are employed or the potential improvements in well-being that may result from such efforts, psychosocial functioning of obese individuals cannot reach desired levels without substantial transformation of larger social systems. It is unfair to place responsibility on obese individuals to alleviate negative societal attitudes towards themselves. Thus, understanding coping methods to deal with stigma are crucial in helping obese persons adopt strategies that can improve their daily functioning in stigmatizing environments and potentially reduce negative consequences of future prejudiced encounters.

References

- Adams, G. R., Hicken, M., & Saliehi, M. (1988). Socialization of the physical attractiveness stereotype: parental expectations and verbal behaviors. *International Journal of Psychology*, *23*, 137–149.
- Bandura, A. (1986). *Social foundation of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bell, S. K., & Morgan, S. B. (2000). Children's attitudes and behavioral intentions toward a peer presented as obese: Does a medical explanation for the obesity make a difference? *Journal of Pediatric Psychology*, *25*, 137–145.
- Billings, A. G., & Moos, R. H. (1984). Coping, stress and social resources among adults with unipolar depression. *Journal of Personality and Social Psychology*, *46*, 877–891.
- Blumberg, P., & Mellis, L. P. (1980). Medical students' attitudes toward the obese and morbidly obese. *International Journal of Eating Disorders*, 169–175.
- Bolger, N., & Zuckerman, A. (1995). A framework for studying personality in the stress process. *Journal of Personality and Social Psychology*, *69*, 890–902.
- Buunk, B. P., Collins, R. L., Taylor, S. E., VanYperen, N. W., & Dakof, G. A. (1990). The affective consequences of social comparison: either direction has its ups and downs. *Journal of Personality and Social Psychology*, *59*, 1238–1249.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology*, *56*, 267–283.
- Catanzaro, S. J., & Greenwood, G. (1994). Expectancies for negative mood regulation, coping, and dysphoria among college students. *Journal of Counseling Psychology*, *41*, 34–44.

- Catanzaro, S. J., Wasch, H. H., Kirsch, I., & Mearns, J. (2000). Coping-related expectancies and dispositions as prospective predictors of coping responses and symptoms. *Journal of Personality*, *68*, 757–788.
- Cooley, C. H. (1956). *Human nature and the social order*. New York: Free Press.
- Cossrow, N. H., Jeffery, R. W., & McGuire, M. T. (2001). Understanding weight discrimination: a focus group study. *Journal of Nutrition Education*, *33*, 208–214.
- Cramer, P. (1998). Coping and defense mechanisms: what's the difference? *Journal of Personality*, *66*, 919–945.
- Cramer, P., & Steinwert, T. (1998). Thin is good, fat is bad: how early does it begin? *Journal of Applied Developmental Psychology*, *19*, 429–451.
- Crandall, C. S. (1991). Do heavy-weight students have more difficulty paying for college? *Personality and Social Psychology Bulletin*, *17*, 606–611.
- Crandall, C. S. (1994). Prejudice against fat people: ideology and self-interest. *Journal of Personality and Social Psychology*, *66*, 882–894.
- Crandall, C. S. (1995). Do parents discriminate against their heavyweight daughters? *Personality and Social Psychology Bulletin*, *21*, 724–735.
- Crandall, C. S. (2000). Ideology and lay theories of stigma: the justification of stigmatization. In T. F. Heatherton, R. E. Neck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 126–150). Guilford Press.
- Crandall, C. S., & Cohen, C. (1994). The personality of the stigmatizer: cultural world view, conventionalism, and self-esteem. *Journal of Research in Personality*, *28*, 461–480.
- Crandall, C. S., & Martinez, R. (1996). Culture, ideology, and antifat attitudes. *Personality and Social Psychology Bulletin*, *22*, 1165–1176.
- Crandall, C. S., Tsang, J., Harvey, R. D., & Britt, T. W. (2000). Group identity-based protective strategies: the stigma of race, gender, and garlic. *European Journal of Social Psychology*, *30*, 355–381.
- Crocker, J. (1999). Social stigma and self-esteem: situational construction of self-worth. *Journal of Experimental Social Psychology*, *35*, 89–107.
- Crocker, J., Cornwell, B., & Major, B. (1993). The stigma of overweight: affective consequences and attributional ambiguity. *Journal of Personality and Social Psychology*, *64*, 60–70.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: the self-protective properties of stigma. *Psychological Review*, *96*, 608–630.
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology*, vol. 2 (4th ed.) (pp. 504–554). Boston: McGraw-Hill.
- Crocker, J., Thomspson, L. L., McGraw, K. M., & Ingerman, C. (1987). Downward comparison, prejudice, and evaluation of others: effects of self-esteem and threat. *Journal of Personality and Social Psychology*, *52*, 907–916.
- Deaux, K., & Ethier, K. A. (1998). Negotiating social identity. In J. K. Swim, & C. Stangor (Eds.), *Prejudice: the target's perspective* (pp. 301–323). Academic Press.
- Degher, D., & Hughes, G. (1999). The adoption and management of a “fat” identity. In J. Sobal, & D. Maurer (Eds.), *Interpreting weight: the social management of fatness and thinness* (pp. 11–27), New York.
- Dovidio, J. F., Major, B., & Crocker, J. (2000). Stigma: introduction and overview. In T. F. Heatherton, R. E. Neck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 1–28). Guilford Press.
- Endler, N. S., & Parker, J. D. (1990). Multidimensional assessment of coping: a critical evaluation. *Journal of Personality and Social Psychology*, *58*, 844–854.
- Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, *21*, 219–239.
- Folkman, S., & Lazarus, R. S. (1988). The relationship between coping and emotion: implications for theory and research. *Social Science Medicine*, *26*, 309–317.
- French, S. A., Story, M., & Perry, C. L. (1995). Self-esteem and obesity in children and adolescents: a literature review. *Obesity Research*, *3*, 479–490.
- Friedman, M. A., & Brownell, K. D. (1995). Psychological correlates of obesity: moving to the next research generation. *Psychological Bulletin*, *117*, 3–20.

- Fuller, M. L., & Groce, S. B. (1991). Obese women's responses to appearance norms. *Free Inquiry in Creative Sociology*, 19, 167–174.
- Goffman, E. (1963). *Stigma: notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice Hall.
- Greenberg, B. S., Eastin, M., Hofshire, L., Lachlan, K., & Brownell, K. D. (2001). The portrayal of overweight and obese persons in commercial television. Paper submitted for publication.
- Guyll, M., Matthews, K. A., & Bromberger, J. T. (2001). Discrimination and unfair treatment: relationship to cardiovascular reactivity among African American and European American women. *Health Psychology*, 20, 315–325.
- Hobfoll, S. E., Dunahoo, C. L., Ben-Porath, Y., & Monnier, J. (1994). Gender and coping: a dual-axis model of coping. *American Journal of Community Psychology*, 22, 49–82.
- Holahan, C. J., & Moos, R. H. (1987). Personal and contextual determinants of coping strategies. *Journal of Personality and Social Psychology*, 52, 946–955.
- Hughes, G., & Degher, D. (1993). Coping with a deviant identity. *Deviant Behavior*, 14, 297–315.
- Joanisse, L., & Synnott, A. (1999). Fighting back: reactions and resistance to the stigma of obesity. In J. Sobal, & Maurer D. (Eds.), *Interpreting weight: the social management of fatness and thinness* (pp. 49–70), New York.
- Karris, L. (1977). Prejudice against obese renters. *Journal of Social Psychology*, 101, 159–160.
- Kliewer, W., Fearnow, M.D., & Miller, P. A. (1996). Coping socialization in middle childhood: tests of maternal and paternal influences. *Child Development*, 67, 2339–2357.
- Kliewer, W., Fearnow, M. D., & Walton, M. N. (1998). Dispositional, environmental, and context-specific predictors of children's threat of perceptions in everyday stressful situations. *Journal of Youth and Adolescence*, 27, 83–100.
- Kral, J. G., Sjostrom, L. V., & Sullivan, M. B. (1992). Assessment of quality of life before and after surgery for severe obesity. *American Journal of Clinical Nutrition*, 55, 611S–614S.
- Latner, J. D., & Stunkard, A. J. (2001). *The stigmatization of obese children: 40 years and counting*. In press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leary, M. R. (1990). Responses to social exclusion: social anxiety, jealousy, loneliness, depression, and low self-esteem. *Journal of Social and Clinical Psychology*, 9, 221–229.
- Lerner, M. J. (1980). *The belief in a just world: a fundamental delusion*. New York: Plenum.
- Levy, A. J. (1993). Stigma management: a new clinical service. *Families in Society*, 74, 226–231.
- Link, B. G., Mirotznik, J., & Cullen, F. T. (1991). The effectiveness of stigma coping orientations: can negative consequences of mental illness labeling be avoided? *Journal of Health and Social Behavior*, 32, 302–320.
- Lyons, R. F., Mickelson, K. D., Sullivan, M. J., & Coyne, J. C. (1998). Coping as a communal process. *Journal of Social and Personal Relationships*, 15, 579–605.
- Major, B., Quinton, W. J., McCoy, S. K., & Schmader, T. (2000). Reducing prejudice: the target's perspective. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 211–237).
- Major, B., & Schmader, T. (1998). Coping with stigma through psychological disengagement. In J. K. Swim, & C. Stangor (Eds.), *Prejudice: the target's perspective* (pp. 219–241). Academic Press.
- MacNair, R. R., & Elliott, T. R. (1992). Self-perceived problem-solving ability, stress appraisal, and coping over time. *Journal of Research in Personality*, 26, 150–164.
- Maroney, D., & Golub, S. (1992). Nurses' attitudes toward obese persons and certain ethnic groups. *Perceptual and Motor Skills*, 75, 387–391.
- Miller, C. T., & Downey, K. T. (1999). A meta-analysis of heavyweight and self-esteem. *Personality and Social Psychology Review*, 3, 68–84.
- Miller, C. T., & Major, B. (2000). Coping with stigma and prejudice. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 243–272). Guilford Press.
- Miller, C. T., & Myers, A. M. (1998). Compensating for prejudice: how heavyweight people (and others) control outcomes despite prejudice. In J. K. Swim, & C. Stangor (Eds.), *Prejudice: the target's perspective* (pp. 191–218). Academic Press.
- Miller, C. T., Rothblum, E. D., Felicio, D., & Brand, P. (1995). Compensating for stigma: obese and nonobese women's reactions to being visible. *Personality and Social Psychology Bulletin*, 21, 1093–1106.

- Myers, A., & Rosen, J. C. (1999). Obesity stigmatization and coping: relation to mental health symptoms, body image, and self-esteem. *International Journal of Obesity*, *23*, 221–230.
- National Association for the Advancement of Fat Acceptance (1991). NAAFA policy on adoption discrimination. [On-line]. Available: <http://www.naafa.org/documents/policies/adoption.html>.
- Neumark-Sztainer, D., Story, M., & Faibisch, L. (1998). Perceived stigmatization among overweight African-American and Caucasian adolescent girls. *Journal of Adolescent Health*, *23*, 264–270.
- Neumark-Sztainer, D., Story, M., & Harris, T. (1999). Beliefs and attitudes about obesity among teachers and school health care providers working with adolescents. *Journal of Nutrition Education*, *31*, 3–9.
- Paul, R. J., & Townsend, J. B. (1995). Shape up or ship out? Employment discrimination against the overweight. *Employee Responsibilities and Rights Journal*, *8*, 133–145.
- Peace, K., Dyne, J., Russell, G., & Stewart, R. (1989). Psychological effects of gastric restriction surgery for morbid obesity. *New Zealand Medical Journal*, *102*, 76–78.
- Pierce, J. W., & Wardle, J. (1993). Self-esteem, parental appraisal, and body size in children. *Journal of Child Psychology and Psychiatry*, *34*, 1125–1134.
- Puhl, R., & Brownell, K. D. (2001). Obesity, bias, and discrimination. *Obesity Research*, *8*, 788–805.
- Quinn, D. M., & Crocker, J. (1998). Vulnerability to the affective consequences of the stigma of overweight. In J. K. Swim, & C. Stangor (Eds.), *Prejudice: the target's perspective* (pp. 125–143). Academic Press.
- Quinn, D. M., & Crocker, J. (1999). When ideology hurts: effects of belief in the Protestant ethic and feeling overweight on the psychological well-being of women. *Journal of Personality and Social Psychology*, *77*, 402–414.
- Rand, C. S., & MacGregor, A. M. (1990). Morbidly obese patients' perceptions of social discrimination before and after surgery for obesity. *Southern Medical Journal*, *83*, 1390–1395.
- Robinson, B. E., & Bacon, J. G. (1996). The “if only I were thin. . .” treatment program: decreasing the stigmatizing effects of fatness. *Professional Psychology: Research and Practice*, *27*, 175–183.
- Rodin, M., Price, J., Sanchez, F., & McElliot, S. (1989). Derogation, exclusion, and unfair treatment of persons with social flaws: controllability of stigma and the attribution of prejudice. *Personality and Social Psychology Bulletin*, *15*, 439–451.
- Roehling, M. V. (1999). Weight-based discrimination in employment: psychological and legal aspects. *Personnel Psychology*, *52*, 969–1017.
- Siegal, K., Lune, H., & Meyer, I. H. (1998). Stigma management among gay/bisexual men with HIV/AIDS. *Qualitative Sociology*, *21*, 3–24.
- Snyder, M., & Haugen, J. A. (1995). Why does behavioral confirmation occur? A functional perspective on the role of the target. *Personality and Social Psychology Bulletin*, *21*, 963–974.
- Suls, J., David, J. P., & Harvey, J. H. (1996). Personality and coping: three generations of research. *Journal of Personality*, *64*, 711–735.
- Swim, J. K., Cohen, L. L., & Hyers, L. L. (1998). Experience everyday prejudice and discrimination. In J. K. Swim, & C. Stangor (Eds.), *Prejudice: the target's perspective* (pp. 37–59). Academic Press.
- Taub, D. E., Blinde, E. M., & Greer, K. R. (1999). Stigma management through participation in sport and physical activity: experiences of male college students with physical disabilities. *Human Relations*, *52*, 1469–1483.
- Taylor, S. E., Buunk, B. P., & Aspinwall, L. G. (1990). Social comparison, stress, and coping. *Personality and Social Psychology Bulletin*, *16*, 74–89.
- Teachman, B., Gapinski, K., & Brownell, K. D. (2001). *Stigma of obesity: implicit attitudes and stereotypes*. Poster presented at the Society for Personality and Social Psychology, San Antonio, TX, February.
- Teachman, B. A., & Brownell, K. D. (2001). Implicit anti-fat bias among health professionals: is anyone immune? *International Journal of Obesity*, *25*, 1525–1531.
- Tomaka, J., & Blascovich, J. (1994). Effects of justice beliefs on cognitive appraisal and subjective, physiological, and behavioral responses to potential stress. *Journal of Personality and Social Psychology*, *67*, 732–740.
- Young, L. M., & Powell, B. (1985). The effects of obesity on the clinical judgements of mental health professionals. *Journal of Health and Social Behavior*, *26*, 233–246.