Social Interactions of Obese and Nonobese Women

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ABSTRACT The stigma associated with obesity is likely to limit the opportunities obese women have to develop social skills. This hypothesis was tested by having obese ($n = 15$) and nonobese ($n = 22$) women converse on the telephone with college students who were unaware of the women's weights. Ratings made by judges who listened to the women's contributions to the conversations but who were unaware of their weights showed that obesity was negatively related to judgments about the women's likability, social skills, and physical attractiveness. The telephone partners of obese women rated the women and themselves more negatively than did the partners of nonobese women. Obese and nonobese women generally did not differ in their evaluations of their own and their telephone partners' behavior, and they also did not differ on a measure of social self-esteem. 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.

Obesity is a major concern in this country, particularly for women, who are more unhappy with their body image and more likely to perceive themselves as overweight than men (see Wooley, Wooley, & Dyrenforth, 1979, for a review). According to the U.S. Department of Health, Education, and Welfare (1979), 24% of women are obese (i.e., at least 20% overweight). In addition to women who actually are obese, many average weight adult women and as many as 60% of adolescent women

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consider themselves to be overweight (Fallon & Rozin, 1985; Moss, Jennings, McFarland, & Carter, 1984). Given the prevalence of real and perceived weight problems among women, it is not surprising that a majority of women have dieted to lose weight by the time they graduate from high school (Kelley & Patten, 1985).

The health risks associated with obesity undoubtedly motivate some women's concerns about their weight, but survey results indicate that the vast majority of women who attempt to lose weight say they do so to improve their appearance (Berman, 1975; Dwyer, Feldman, & Mayer, 1967). In a society that prizes physical attractiveness and in which being thin is virtually a prerequisite for being attractive, the obese may face formidable barriers to establishing and maintaining social relationships. Thus, social consequences of obesity probably are the primary reason for women's dissatisfaction with their weight, and for their sometimes obsessive, and rarely successful, efforts to control their weight.

One reason social relationships may pose difficulties for the obese is the existence of stereotypes about obese people. For example, results of several studies indicate that obese people are rated more negatively than nonobese people on characteristics such as intelligence, success, and desirability as an employee (Harris, Harris, & Bochner, 1982; Larkin & Pines, 1982; Maddox & Liederman, 1969). Obese people also are perceived as physically unattractive (Beck, Ward-Hall, & McLear, 1976; Harris et al., 1982; Larkin & Pines, 1979; Lavrakas, 1975; Lerner & Gellert, 1969), and a large volume of research shows that observers rate physically unattractive people more negatively than attractive people on many dimensions, including personality traits, mental health, academic skills, employment-related characteristics, and likability (see Adams, 1977; Berscheid & Walster, 1974; and Patzer, 1985, for reviews). Taken together, this research indicates that people have negative expectations about obese people.

An assumption often made about the negative stereotypes associated with obesity is that they adversely affect the psychological adjustment, self-esteem, and body image of obese people (Allon, 1982; Jarvie, Lahey, Graziano, & Framer, 1983; Wooley et al., 1979). However, the path from others' negative expectations to an obese person's *general* psychological well-being and self-esteem is long and indirect, so it is not surprising that with the exception of body image, obese people, including those who have been obese since childhood, generally do not differ from nonobese people on these variables (Allon, 1982; Jarvie et al., 1983). Although such findings suggest that obesity may not have

negative psychological effects, a closer examination of specific dispositions (e.g., social self-esteem, social anxiety), rather than general adjustment, might be needed to understand how the stigma associated with obesity affects obese people.

We reasoned that because obese people are perceived as unattractive, there should be some parallels between the effects of being obese and being unattractive. For example, research shows that physical attractiveness, like obesity, is unrelated to general measures of well-being such as self-esteem (Adams, 1977; Major, Carrington, & Carnevale, 1984; Mathes & Kahn, 1975; Sigall & Michela, 1976). Nevertheless, there are some important behavioral differences between attractive and unattractive people (Dion & Stein, 1978; Reis, Nezlek, & Wheeler, 1980).

In the study most relevant to the present study, Goldman and Lewis (1977) examined college students' reactions to attractive and unattractive students they spoke to by telephone. Because the students never saw their telephone partners (and thus were unaware of their attractiveness), their reactions provide estimates of the social behaviors of attractive and unattractive people that could not have been biased by stereotypes about attractiveness. Results of this study showed that attractive telephone partners were rated as more socially skilled and likable than were unattractive partners.

One popular explanation for differences in the behavior of attractive and unattractive people is that stereotypes often become self-fulfilling prophecies (Adams, 1977; Snyder, 1981). Snyder, Tanke, and Berscheid (1977), for example, showed that negative expectations affected how men conversed on the telephone with women who were represented (via photographs) as being physically attractive or unattractive. Moreover, by responding in kind to the treatment they received, the supposedly attractive and unattractive women behaviorally confirmed the initial expectations the men had about them.

Other studies indicate that people behave differently toward attractive and unattractive individuals in a variety of ways, including helping behavior, self-disclosure, nonverbal behavior, and willingness to initiate social interactions (Adams, 1977; Patzer, 1985). Such findings suggest that unattractive people may have far fewer opportunities to interact in a positive manner than do attractive people (Reis et al., 1980).

Because thinness is an important component of attractiveness in our society, and because obesity is often a long-term condition, we suspected that obese women also are likely to have had a history of re-

ceiving negative treatment from others and of being more socially isolated than nonobese women. As a result, obese women may have had relatively few opportunities to develop the skills needed to interact successfully with others, and/or may be less comfortable and more anxious during their interactions. For these reasons, we hypothesized that obese women, like the unattractive people studied by Goldman and Lewis (1977), would make a less positive impression than nonobese women during a social interaction even if the woman or man with whom they interacted was unaware of their weight.

Accordingly, the purpose of the present study was to determine how obese and nonobese women behaved during a social interaction (i.e., a telephone conversation) with college students who were unaware of the women's weights. The women and their telephone partners evaluated themselves and each other. In addition, audiotape recordings of the women's contributions to the conversations were later evaluated by naive judges who were unaware of the women's weights. Thus, the method we used, which we adopted from previous research (Goldman & Lewis, 1977; Snyder et al., 1977), tests the hypothesis that there actually are differences in the social behaviors of obese and nonobese women.

METHOD

Subjects

We recruited 15 obese and 22 nonobese women through newspaper advertisements for a "psychology department study." The advertisement stated that we needed normal weight women and women who were at least 20% overweight, and that participants would receive $10 for the hour-long experiment. Women who answered the advertisement first were given information about the experiment. They were told that it was a study of how women communicate with other people, and that both normal and overweight women were being asked to participate in order to get a wide range of types of people. The women were also told that if they agreed to participate, they would be talking on the telephone with a college student and that the conversation would be recorded so that we could later study how both people communicated. The women were informed that at the end of the conversation they would fill out some questionnaires about their reactions. They were then asked if they were interested in participating. Those who agreed were asked to indicate if they were over 18 years old, their height, and their weight. Women who were at least 20% over the midpoint for average weight for their height (according to Metropolitan Life Insurance Company tables) were classified as obese, and those who were less than 20% over average weight for their height were classified as nonobese.

The women's telephone partners were 25 female and 12 male undergraduates who received extra credit toward their course grade for their participation. Women were randomly assigned to telephone partners within the constraints of their schedules.

Telephone Conversation

The women were scheduled to meet individually with a female experimenter. Upon arrival they received a written description of the study, which was presented as a study of social interactions. After signing a written consent form, they completed a measure of social self-esteem, the Social Self-Esteem Inventory (Lawson, Marshall, & McGrath, 1979). This inventory asks respondents to rate each of 30 statements (e.g., "I am easy to like") on 6-point Likert scales (1 = completely unlike me; 6 = completely like me). Higher scores indicate greater social self-esteem.

Next, the women were informed that they would have a telephone conversation with an undergraduate college student. All women were asked to allow the experimenter to record them on audiotape during the conversation. The experimenter explained that the recordings of their behavior would later be rated by observers to see how well they communicated during the conversation.

The experimenter then gave the women a questionnaire for reporting their expectations about the conversation. This questionnaire asked them to indicate on 7-point bipolar scales how interested their telephone partner would be in what they had to say, how friendly, comfortable, and anxious their partner would be with them, how good an impression they would make on their partner, how well their partner would get to know them, and how much their partner would like them. They also were asked to indicate for each of these items how they thought they would react to their partner.

While these procedures were occurring, the college student who was to serve as the woman's telephone partner was waiting in another room. The telephone partner had been scheduled to arrive approximately 20 minutes before the woman to insure that they did not see each other before the experiment began. The experimenter had given the telephone partner questionnaires unrelated to the present experiment to complete while waiting for the experimenter.

After preparing the woman for the conversation, the experimenter returned to the room where the telephone partner waited. Telephone partners were told that they would have a telephone conversation with a woman from the local area. The experimenter then gave the telephone partner a questionnaire (identical to the one given the women) for reporting his or her expectations about the conversation.

While the telephone partner completed this questionnaire, the experimenter returned to the woman's room. After confirming that the woman was ready to begin the conversation, the experimenter turned on the recording equipment and told the woman to wait for the call from her telephone partner. The experimenter then went to the telephone partner's room and asked the partner to begin the conversation.

Both participants were told to try to get to know each other during the conversation. They were allowed approximately 5 minutes to converse, and were free to talk about whatever they liked. Both participants were instructed not to use their own names or to ask their partner for their name. The experimenter was not present in either room during the conversation.

After the conversation was over, the experimenter gave the woman and the telephone partner (still seated in their respective rooms) a questionnaire identical to the one they completed before the conversation, except that it asked them to indicate how they and the other person had reacted to each other during the conversation. The experimenter also gave the woman a questionnaire which asked her to report her age, education, income, weight, and efforts to lose weight by dieting. The experimenter then explained the purpose of the study.

Procedures for Obtaining Judges' Ratings of Women

Judges were undergraduate college students who listened to the audiotapes of the women's contributions to the conversations and rated their impressions of the women's social skills, likability, affects, and physical attractiveness. Judges were unaware of the women's weights and of the purpose of this study. They were told only that this was a study of impression formation and that they would be listening to one side of a telephone conversation between two people.

Judges participated for 90 minutes in groups of 9 to 15 students. Each group listened to either seven or eight conversations that had been randomly selected and rerecorded. In this way, each woman's audiotape was rated by a minimum of nine judges.

The rating form that judges completed for each woman included eight questions about her social skills: whether she (*a*) got off to a good start in the conversation, (*b*) was socially skilled, (*c*) would be easy to talk with, (*d*) was a good conversationalist, (*e*) was poised, (*f*) was competent, (*g*) put her partner at ease, and (*h*) ended the conversation well. There were five questions about the woman's likability: (*a*) Did she make a good impression, (*b*) was she friendly, (*c*) would she make a good coworker, (*d*) would she be nice to have as a friend, and (*e*) was she likable? Judges also completed four questions about the woman's affect regarding how comfortable, tense, nervous, and anxious she was with her partner. Finally, we asked the judges to estimate how physically attractive they thought each woman was. All ratings were made on 5-point scales and were scored so that 5 indicated that the descriptor was "very true" of the person being rated and 1 indicated that the descriptor was "not at all true."

Judges' ratings of each woman were averaged for each question. We then computed composite social skill, likability, and affect scores by averaging across the questions used to assess these dimensions. The reliabilities of these scores, which we estimated using Cronbach's α, were .97, .97, and .89 for social skill, likability, and affect, respectively. These composite scores, along with the judges' average ratings of the women's physical attractiveness, were the four dependent measures we obtained from the judges' ratings of the women.

RESULTS

Subject Characteristics

The average weights reported by obese and nonobese women were 196.3 lb (89.2 kg) and 130.6 lb (59.4 kg), respectively, $F(1, 32) = 127.79$, $p < .0001$. Previous research indicates that self-reported weight corresponds well to actual weight (Rzewnicki & Forgays, 1987; Schachter, 1982; Stunkard & Albaum, 1981). Obese women also rated themselves as more overweight on a 7-point scale (1 = very underweight, 7 = very overweight) than did nonobese women (Ms = 6.3 and 4.3, respectively), $F(1, 32) = 60.92$, $p < .0001$. It is interesting to note that 45% of the nonobese women (and 100% of the obese women) rated themselves as being overweight. However, the nonobese women who thought they were overweight also reported being considerably fewer pounds overweight (M = 13.8 lb, n = 9) than did the obese women (M = 54.3 lb, n = 14), $F(1, 21) = 56.48$, $p < .0001$. There also was a tendency for more obese women (50%) than nonobese women (20%) to report that they currently were dieting to lose weight, $F(1, 32) = 3.54$, $p = .07$.

The obese women in our sample were older than the nonobese women (Ms = 40.1 and 32.3 years, respectively), $F(1, 32) = 4.84$, $p < .04$, but the two groups of women did not differ in income or education, Fs(1, 32) < 1. Their responses indicated that on average they had completed college and made between $10,000 and $20,000 annually.

Overview of Analyses

The women and their telephone partners rated their own and each other's behavior. We also obtained ratings by college student judges of the women's behavior during the conversation. Preliminary analyses using a multivariate analysis of variance (MANOVA) on each set of measures revealed no significant effects for the telephone partners' gender. We therefore collapsed across gender in the analyses reported below. Degrees of freedom differ slightly for different measures due to missing data.

In addition, the fourth author listened to each tape to see if any of the women revealed their weight during the conversation. Two women (both obese) did make a brief reference to their weight. Data from these women were deleted from analyses of all postconversation ratings made by the women and their partners. These women were included in analyses of ratings made by college student judges. Their conversations first were edited so that the reference to weight was deleted. In both cases the deleted segment was approximately 18 words long. To control for any effects of this editing, an approximately equal-length segment was randomly deleted from all other women's conversations.

Ratings by college student judges. The college student judges' ratings of the women's social skills, likability, affects, and attractiveness were examined by comparing them with a multivariate analysis of covariance (MANCOVA) in which age, the only demographic variable on which obese and nonobese women differed significantly, was the covariate. The multivariate effect for weight was significant, $F(4, 24) = 3.12$, $p < .03$. Univariate F tests indicated that obese women were rated as less likable, $F(1, 27) = 5.23$, $p < .03$, less socially skilled, $F(1, 27) = 5.23$, $p < .03$, and less physically attractive, $F(1, 27) = 9.38$, $p = .01$, than nonobese women (see Table 1 for means). Differences between the ratings of obese and nonobese women's affect did not approach significance, $F(1, 27) = 1.93$, *ns*.

Because the obese women varied in how overweight they were, we also computed correlations between how many pounds overweight the obese and nonobese women said they were (estimates ranged from 0 to 80 lb) and the judges' evaluations of their behavior. These correlations were partial correlations in which age was controlled. As can be seen in Table 1, the more overweight the women were, the lower they

Table 1
College Student Judges' Mean Ratings of Obese and Nonobese Women

Composite rating	Obese women	Nonobese women	Partial correlation with pounds overweight
Social skill	25.6	28.8	−.47*
Likability	17.0	19.0	−.48*
Negative affect	13.2	14.4	.37*
Attractiveness	2.8	3.4	−.63*

Note. The mean for each composite rating is the sum of the items used to calculate that rating. High scores represent high values on each composite variable. Age was controlled for in all partial correlations.
*$p < .02$, $df = 28$.

were rated on social skills, likability, and physical attractiveness, and the higher they were rated on negative affect.

Telephone partners' ratings. Telephone partners' ratings of the women also were analyzed by a MANCOVA in which weight was the only between-subjects factor and age was the covariate. Although there was not a significant multivariate effect of the women's weight in the telephone partners' postconversation ratings of the women, $F(7, 24) = 1.92$, *ns*, five of the seven univariate F tests revealed significant differences (see Table 2 for means). Compared to telephone partners of nonobese women, telephone partners of obese women liked the women less, $F(1, 30) = 8.93$, $p < .01$, said they made a less positive impression, $F(1, 30) = 5.52$, $p < .03$, were less friendly, $F(1, 30) = 4.0$, $p < .05$, and less comfortable, $F(1, 34) = 6.65$, $p < .02$, and said they did not get to know them well, $F(1, 30) = 4.13$, $p < .05$. Analysis of partners' preconversation ratings of their expectations about the women revealed one significant univariate effect. Partners of obese women expected their partners to be *more* comfortable ($M = 4.5$) than did partners of nonobese women ($M = 3.9$), $F(1, 31) = 4.81$, $p < .04$.

A MANCOVA on telephone partners' postconversation ratings of themselves revealed a near significant multivariate effect for weight, $F(7, 24)$, $p < .10$. Univariate F tests indicated that partners of obese women said that the women liked them less, $F(1, 30) = 6.79$,

Table 2
Mean Ratings by Telephone Partners

Rating scale	Partners' self-ratings: Women's weights: Obese	Partners' self-ratings: Women's weights: Non-obese	Partners' self-ratings: Partial correlation with pounds overweight	Partners' ratings of women: Women's weights: Obese	Partners' ratings of women: Women's weights: Non-obese	Partners' ratings of women: Partial correlation with pounds overweight
Made good impression?	5.1	5.8	−.32*	5.3	6.2	−.32*
How much liking?	5.0	6.0	−.39*	5.1	6.3	−.43*
Friendly	6.1	6.5	−.09	6.2	6.7	−.32*
Comfortable	5.3	5.9	−.14	5.0	6.0	−.37*
Anxious	3.2	3.8	−.25	3.3	3.9	−.13
Interested	5.4	6.0	−.06	5.4	5.6	−.14
Got to know well?	3.6	4.3	−.13	3.2	4.1	−.15

Note. Ratings were made on 7-point scales. Age was controlled in all partial correlations.
*$p < .05$, $df = 30$.

$p < .01$, and that they made a less positive impression on the women, $F(1, 30) = 4.07$, $p < .05$, than did partners of nonobese women (see Table 2). In contrast, preconversation ratings indicated that partners of obese women had expected to be *more* comfortable and *less* anxious (Ms = 4.4 and 4.2, respectively) than did partners of nonobese women (Ms = 3.7 and 5.2, respectively), Fs(1, 31) ≥ 4.76, ps ≤ .04.[1]

We also used partial correlations (controlling for age) to examine the relationship between the women's reports of how many pounds overweight they were and the telephone partners' postconversation ratings of the women and themselves. These correlations showed that increased extra weight was negatively correlated with the partners' liking for the

1. This finding, as well as the finding of preconversation differences in telephone partners' expectations about the women, suggests that random assignment of partners to women was not completely successful in controlling preconversation differences between partners who were assigned (without their knowledge) to obese and nonobese women. Fortunately, these preconversation differences were in the opposite direction of our predictions, and thus do not seem to explain our postconversation findings.

Table 3
Mean Ratings by Women

Rating scale	Women's self-ratings: Women's weights: Obese	Women's self-ratings: Women's weights: Non-obese	Women's self-ratings: Partial correlation with pounds overweight	Women's ratings of partners: Women's weights: Obese	Women's ratings of partners: Women's weights: Non-obese	Women's ratings of partners: Partial correlation with pounds overweight
Made good impression?	6.0	5.6	.09	6.1	6.0	.01
How much liking?	5.5	5.7	−.01	6.2	6.3	−.04
Friendly	6.9	6.6	.20	6.3	6.4	.25
Comfortable	6.3	6.1	.03	6.0	5.6	.16
Anxious	3.4	2.8	.32*	3.5	3.2	.28*
Interested	6.2	6.2	−.10	5.6	5.8	−.10
Got to know well?	4.2	3.9	.07	4.4	4.0	.17

Note. Ratings were made on 7-point scales. High scores represent high values on each composite variable. Age was controlled in all partial correlations.
*$p < .05$, $df = 31$.

women, with their perceptions of how much the women liked them, with their ratings of how good an impression the women made on them and vice versa, and with the partners' ratings of how comfortable and friendly the women were (see Table 2).

Women's ratings. The women's ratings of themselves and their partners (see Table 3 for postconversation means) were analyzed by the same procedures described above. Because the judges' and telephone partners' ratings indicated that the behavior of obese women was perceived relatively negatively, we were interested in whether the women themselves would also perceive differences in their behavior. The multivariate weight effect was not significant in the women's ratings of their partners, $F(7, 25) = 1.25$, *ns*, or themselves, $F(7, 25) = 1.57$, *ns*. Partial correlations (controlling for age) revealed only that the more pounds overweight the women rated themselves to be, the more anxious they rated themselves and their partners (see Table 3).

There were no significant differences between obese and nonobese women's mean preconversation ratings of themselves and their tele-

phone partners (all $ps > .10$). However, correlational analyses (controlling for age) indicated that the more pounds overweight the women said they were, the less interested they expected their partners to be in them, $r(32) = -.28$, $p = .05$, and the less positive an impression they thought they would make on their partners, $r(32) = -.35$, $p < .02$.

Social Self-Esteem Inventory. Nonobese women scored slightly higher ($M = 142.3$) than did obese women ($M = 134.6$) on the Social Self-Esteem Inventory (Lawson et al., 1979), but obese and nonobese women's scores did not differ significantly, $F(1, 34) < 1$. The partial correlation (controlling for age) between the women's reports of how many pounds overweight they were and social self-esteem also was in the expected direction, but did not reach significance, $r(33) = -.27$, $p = .07$.

DISCUSSION

Obese women were liked less, made a poorer impression, and were rated as being less socially skilled and less physically attractive than nonobese women. Because neither the telephone partners nor the college students who listened to the conversations actually were aware of the women's weights, these findings indicate that there were some actual differences in the social behavior of obese and nonobese women. Moreover, correlational analyses indicated that 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 become greater as the level of obesity increases.

Telephone partners' ratings of themselves indicated that the behavior of obese women may have set off a chain of events that resulted in their partner's rating their own performance relatively negatively. Thus, not only did obese women make a relatively unfavorable impression on their partners, but they also made their partners feel that they had not made a good impression either.

There are several potential processes that could have created the differences observed between ratings of obese and nonobese women. First, because of the stigma associated with obesity, obese women may have a history of being ignored and/or treated in a negative fashion. This may limit their opportunity to acquire social skills. This lack of skill may, in turn, produce behavioral differences between obese and nonobese women that affect the impressions others form of them.

Second, the obese women in the study may have expected negative reactions from others in social situations, and thus may have reduced their expression of positive social skills. This is similar to Hill's (1989) finding that shy people express lower self-efficacy with respect to some social situations and less willingness to participate in social situations than people who are not shy. Furthermore, people who expect others to dislike them behave in ways that make people dislike them (Curtis & Miller, 1986). Our results indicated that obese women expected to make a more negative impression on their telephone partners than nonobese women, and also that obese women expected their partners to be less interested in them. Thus it is possible that obese women's expectations affected their behavior.

Third, the women's voices may have provided cues independent of their behavior and/or emotional state that enabled judges to accurately guess their weights. Inferences about weight may then have mediated other judgments they made about the women. Such voice cues might exist because obesity (or physical conditions closely associated with obesity) could have direct physical effects on speech. An obvious way to test this idea is to have judges try to guess the weights of the women they heard on the audiotapes. We did not ask the college student judges to guess the women's weights in order to keep them unaware of the purpose of the study. Moreover, previous research has shown that judgments about appearance are susceptible to halo effects. For example, people described as having desirable personality traits are perceived as more physically attractive than people described less positively (Gross & Crofton, 1977). In other words, just as people infer negative characteristics about an individual based on a physically unattractive appearance, they also make inferences about appearance based on information about behavior and personality. In the present study, weight estimates could be influenced by the women's actual behavior, and thus would not have answered the question of whether the voices of obese women provide cues about their weights independent of their behavior and/or psychological state. Thus, further research (for example, asking judges to guess the weights of women who were audiotaped reading standard passages) would be necessary to determine whether auditory cues could activate the obesity stereotype.

One limitation to this study is that the sample was relatively small and

was not randomly selected from the general population. Of particular concern is that we advertised for normal and overweight women and had to ask questions about weight during the telephone interview we used to screen women who responded to our advertisement. Although this may have increased the salience of weight to study participants, it should be noted that several days elapsed between the telephone interview and the experimental session, and weight was not mentioned or referred to during the session until after the conversation and impression questionnaire had been completed.

It also is possible that different types of sample bias occurred among obese and nonobese women. For example, obese women who have had particular difficulties with social relationships may have been more interested in participating in a psychological experiment, especially one concerned with communication, than other obese women. On the other hand, obese women who experience problems in social relationships might be less willing to expose themselves to situations that require interacting with strangers. In addition, if participation in this study was more (or less) appealing to people who have experienced problems in interacting with others, nonobese women who have experienced such problems should be similarly affected.

The obese women who participated in this study also were older than the nonobese women. Because obesity becomes more prevalent as women age, it is not surprising that this was the case. We controlled for age statistically, but it also would be desirable to conduct studies in which obese and nonobese women are matched on age.

In summary, results of this study suggest that there are differences in the social behavior of obese and nonobese women, and that these differences may lead those who interact with obese women to evaluate their own behavior relatively negatively. Further research is needed to determine if the behavioral differences we observed between obese and nonobese women reflect differences in their level of social skills, the effects of obese and nonobese women's expectations on their ability to use their social skills, and/or auditory cues specific to obese persons. Stereotypes about obese people are likely to be implicated in either case because stereotypes may limit obese women's opportunities to develop social skills and make it more difficult for them to use the skills they have.

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