

# Emotions underlying obesity

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The purpose of this experiment was to compare the degree of anxiety and depression in obese overeaters with that of non-obese normal eaters to determine whether these emotions affect obesity. There were 20 female subjects, 10 obese individuals and 10 non-obese. Subjects were matched on two variables, age and gender. Anxiety was measured by the Taylor Manifest Anxiety Scale (Taylor, 1953), and depression was measured by the Beck Depression Inventory (Beck, 1961). The results indicated significantly higher levels of anxiety and depression in the obese than in the non-obese. The results support the hypothesis that anxiety and depression are each a cause of obesity. The results indicate a need for further research into psychological variables controlling overeating.

Research (Bruch, 1973) indicates an increase in the incidence of obesity over the last 10 years. However, the research studies on obesity have focused primarily on processes of biochemical and biomedical etiology and have disregarded the psychological perspective (Epstein & Cluss, 1986; Levin, Triscari, & Sullivan, 1986).

This lack of research suggests a need for investigation and evaluation of the underlying etiology that elicits overeating behavior of some individuals and not of others. The purpose of the present investigation was to establish the relationship between underlying emotions, depression and anxiety, and the instances of overeating. The present study examined the relationships between anxiety and overeating and between depression and overeating.

## METHOD

### Subjects

There were 20 volunteer female subjects in the experimental and control groups, all between the ages of 30 and 50 years (mean age = 40). The experimental group was composed of 10 members of Overeaters Anonymous. These 10 experimental group members were chosen from 15 volunteers; they were not randomly selected. The mean weight of the experimental subjects was 182.9 lb (mean age = 43.4). The control group was composed of 10 women from the college night-school population at a midwestern 4-year college. These subjects were randomly selected. The control subjects were between 30 and 50 years of age (mean age = 37.1), and their mean weight was 126.4 lb.

### Materials

The Taylor Manifest Anxiety Scale (TMAS; Taylor, 1953) and the Beck Depression Inventory (BDI; Beck, 1961) were given to each subject. High scores on the TMAS indicate a high level of anxiety, and low scores indicate a low level of anxiety. High scores on the BDI indicate a high level of depression, and low scores indicate a low level of depression.

### Procedure

The experimental subjects first completed the TMAS about the degree of anxiety experienced during their eating behavior. Second, the experimental subjects were given the BDI, in which they described the degree of depression experienced during their eating behavior. The control subjects were instructed to fill out the TMAS first and then the BDI.

## RESULTS AND DISCUSSION

The TMAS scores were analyzed using analysis of variance (ANOVA) [ $F(1,18) = 6.58, p < .05$ ]. The means for the obese group and the control group were 17.3 and 3.5, respectively. The BDI scores were also analyzed using an ANOVA [ $F(1,18) = 20.87, p < .05$ ]. The means were 17.2 and .2 for the obese group and the control group, respectively.

The results of this study indicate a significantly higher level of anxiety in the obese subjects during eating than in the control subjects. These results support the hypothesis that underlying anxiety is one cause of obesity.

The results also indicate a significantly higher level of depression in the obese subjects during eating than in the control subjects. The results support the hypothesis that underlying depression is one cause of obesity.

Further research should examine the role of order of testing for anxiety and depression. Also, further research should look at anxiety and depression scores of habitual overeaters before binges compared with scores during and after binges. Future research also should examine several degrees of obesity and their effects on anxiety and depression. Finally it would be of interest to determine whether the same results would occur for normal and obese men as for our female subjects.

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