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## ABSTRACT

This study investigated the hypothesis that obese female adolescents would show evidence of greater maladjustment on objective personality indices as compared to general norms for adolescents. Findings support this hypothesis, as measured by the Minnesota Multiphasic Personality Inventory (MMPI). In particular, the difficulties of the obese group are characterized by feelings of depression, alienation, and low self-worth. They also tend to be: (1) non-conforming; (2) exhibit problems in impulse control; and (3) somewhat distrustful. Correlations between percentage overweight and the MMPI scales suggest that the more overweight an individual, the greater the tendency to present oneself as having problems and to have low ego strength. Finally, the correlation between percentage overweight and the I-E scale of the MMPI, although not significant, suggests that the more an individual is overweight, the more she tends to view control of the environment as external to herself. (Author/TA)

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PERSONALITY CHARACTERISTICS  
OF OBESE ADOLESCENT FEMALES

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Obesity is one of the nation's major health problems. It has been reported that at least 10 million adolescents, representing 15 to 20 per cent of this age group, are overweight (Wilson, Farber, Kimbrough & Wilson, 1969). At the Adolescent Clinic of the University of Colorado Medical Center, obesity is the primary presenting complaint in 17 per cent of the patients seen, and ranks as the most frequent presenting complaint. An additional 10 per cent of the patients are diagnosed as obese although this is not their primary complaint. There is also a marked difference in the number of females who seek medical attention for the problem of obesity as compared to the number of males. At the Adolescent Clinic, ten times as many females are seen for this problem as males. These data indicate that adolescent obesity is a pervasive problem, and appears to be of greatest concern to females.

In medical settings, obesity often is treated only as a metabolic or nutritional problem, and psychological factors which may be related to this difficulty tend to be ignored or dealt with minimally. The traditional medical approaches to treating obesity are frequently unsuccessful. In those cases in which individuals are successful in losing weight, the weight losses are often not maintained. The present authors felt as a result of their experiences with obese adolescents that these individuals also had serious difficulties in personal and social adjustment. Failure to deal with these psychological problems may account for the lack of success of traditional treatment methods. This study investigated the hypothesis that obese female adolescents would show evidence of

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greater maladjustment on objective personality indices as compared to general norms for adolescents.

The subjects in this study were 20 adolescent females (Mean Age=16.3 years) who had a mean weight of 186.0 pounds and averaged 62.7 per cent overweight. Each was being seen at the Adolescent Clinic of the University of Colorado Medical Center for the primary complaint of obesity. All subjects were administered the Minnesota Multiphasic Personality Inventory (MMPI), Mooney Problem Check List (High School Form), and Rotter's Internal-External Control Scale (I-E).

The results showed that on six of the nine clinical scales of the MMPI, the scores of the obese group were approximately one standard deviation higher than the comparison group (Hathaway and Monachesi's sample of 5207 female adolescents). These results are shown in Table 1. Although the obese group also scored higher on the Psychasthenia, Hypomania and Social Introversion scales, these differences were not as great as compared to the other six clinical scales. The greatest differences occurred on the Depression, Psychopathic Deviate and Schizophrenia scales and, in fact, the obese group had average elevations on the Pd and Sc scales above a T score of 70. These findings support the hypothesis that obese patients show evidence of greater maladjustment, as measured by the MMPI, than the comparison sample. In particular, the difficulties of the obese group are characterized by feelings of depression, alienation and low self-worth. In addition, they tend to be

nonconforming, exhibit problems in impulse control and are somewhat distrustful.

Additional support for the hypothesis that this group has significant adjustment difficulties is found in the results of the Mooney Problem Checklist. The obese group checked a mean of 87.1 problems as compared to a mean of 25 problems checked by Mooney's reported sample of high school students. This number of problems places the obese group above the ninety-fifth percentile. The greatest number of problems checked by this group were in the areas of personal and social relations.

Within the obese group, correlations were computed between percentage overweight and the MMPI scales (see Table 2). Significant correlations were found between percentage overweight and the F ( $r=.41$ ), K ( $r=-.43$ ), D ( $r=.40$ ), Pd ( $r=.37$ ), Pt ( $r=.37$ ), Si ( $r=.46$ ), and Es ( $r=-.46$ ) scales. These correlations suggest that the more overweight an individual, the greater the tendency to present oneself as having problems and to have low ego strength. Although there was no marked difference between the obese and comparison groups on the Si scale, the correlational data indicate that the extent of obesity is positively related to the amount of social introversion and anxiety in social relations. The implications of the correlations involving the D, Pd and Pt scales are difficult to determine, since interpretation of these scales depends to a large extent on configural analysis of the MMPI profile. The correlation between percentage overweight and the I-E scale ( $r=.35$ ), although not significant,

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suggests that the more an individual is overweight, the more she tends to view control of the environment as external to herself.

The overall findings demonstrate the extent of the personality and adjustment difficulties experienced by adolescent females who seek medical treatment for the problem of obesity. These data suggest that, in addition to the traditional medical approaches to treating obesity, other treatment methods, such as individual or group psychotherapy, may be necessary to effectively help these individuals. Whether or not there is a causal relationship between the adjustment difficulties and the problem of obesity shown by this group, both areas need to be given serious attention.

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TABLE 1  
MMPI Comparisons (T-Scores)

<u>Scale</u>	<u>Obese Group</u>		<u>Comparison Sample</u>		
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>	<u>Difference</u>
L	49.1	6.5	48.0	7.2	+1.1
F	62.0	11.2	55.9	7.4	+6.1
K	49.9	8.8	52.5	11.1	-2.6
Hypochondriasis	57.6	10.0	48.1	8.6	+9.5
Depression	62.4	11.1	48.8	8.8	+13.6
Hysteria	61.0	11.4	51.7	8.5	+9.3
Psychopathic Deviate	70.4	12.0	58.7	9.3	+11.7
Masc.-Fem.	51.2	9.6	52.8	9.8	-1.6
Paranoia	64.4	11.2	55.6	9.7	+8.8
Psychasthenia	64.9	9.1	56.7	8.3	+8.2
Schizophrenia	72.0	13.8	58.6	9.8	+13.4
Hypomania	64.4	13.0	56.7	11.7	+7.7
Social Introversion	58.5	8.3	54.7	9.3	+3.8
Ego Strength	46.8	9.8	_____	_____	_____
Anxiety	56.5	10.1	_____	_____	_____
Repression	50.4	7.3	_____	_____	_____



TABLE 2

Correlations Between Percentage Overweight and  
MMPI, I-E and Mooney Checklist Scales

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Percentage Overweight with:

<u>Scale</u>	<u>r</u>	<u>p</u> (less than)
F	+ .41	.05
K	- .43	.05
Hs	+ .01	ns
D	+ .40	.05
Hy	- .10	ns
Pd	+ .37	.05
Mf	+ .20	ns
Pa	+ .17	ns
Pt	+ .37	.05
Sc	- .10	ns
Ma	- .37	ns (opposite direction of prediction)
Si	+ .46	.05
Es	- .46	.05
A	+ .25	ns
R	- .09	ns
I-E	+ .35	ns
Mooney (Total)	- .14	ns