



**ASSOCIATED INTERNAL  
MEDICINE PHYSICIANS  
OF CENTRAL ILLINOIS**

## **HEALTH *By Design***

### **EFFICACY OF A MEDICALLY BASED COGNITIVE BEHAVIORIAL WEIGHT CONTROL PROGRAM**

Analysis of data collected on the first 130 patients who completed an HBD evaluation is very promising. Seventy percent (70%) of individuals who began treatment were still involved after one year. This is a particularly impressive finding when compared to the attrition rates of commercial weight loss programs which approach 50% during the first 6 weeks and reach 70-80 percent by 24 weeks (Volkmar, et al., 1981; Nash, 1977). For weight management to be effective, participants need to remain involved in treatment. Prevention of early termination is particularly important as research has shown that although individuals working on weight control move through various stages of behavioral change, many do not reach an actual "lifestyle change" until the second year of treatment (Kirshenbaum, et al., 1992). Moreover, we believe that by asking participants to make a long-term commitment, we assist them in realizing that weight change may not occur immediately, as healthy weight loss and maintenance takes time. It appears that this program philosophy appeals to a majority of those participants' enrolling for treatment in our program. This, in turn, leads to a strong commitment to treatment and increases the potential for success.

Follow-up data of those individuals who remain involved in the program for a minimum of one year are equally impressive. Average initial weights and BMI's with one year follow-up changes are shown below:

	<u>Mean Baseline</u>	<u>Mean Change After 1 year</u>
<u>Average Weight:</u>		
Women	238.07 (s.d = 50.93)	-28.13 (s.d. = 24.50)
Men	379.33 (s.d. = 82.69)	-76.99 (s.d. = 72.33)
<u>Average BMI:</u>		
Women	40.36 (s.d = 8.99)	-4.83 (s.d. = 4.28)
Men	51.59 (s.d. = 9.52)	-9.53 (s.d. = 7.28)

All changes are statistically significant ( $p < .0001$ ). Furthermore, medical data also demonstrates changes in the desired direction (i.e., decrease in blood pressure, pulse, LDL and Total cholesterol/HDL ratios). Clearly, these data fall within the guidelines associated with improved health following even mild weight loss (cf. Blackburn et al 1994; Wing, et al, 1987).

Our multidisciplinary approach to treatment emphasizes a biopsychosocial paradigm. In order to impact the physiology and medical status we must help change the behaviors, beliefs, attitudes, and emotions related to eating and exercise through improved problem identification, problem-solving, decision-making, coping, and self-regulation. Improvement in these important areas was also demonstrated in the annual follow-up. Specifically, participants reported more perceived self-control, (Self-Control Scale; ns), less depression (Beck Depression Scale;  $p < .001$ ), and less symptoms associated with psychopathology (Borderline Screening Index;  $p < .001$ ). Self-report measures regarding eating behavior indicated greater eating self-efficacy (Eating Self-Efficacy Scale;  $p < .001$ ) greater ability to resist temptation, improved eating in positive social situations, making better food choices, better exercise habits, improved ability to control overeating and handling negative emotions (Dieters Inventory of Eating Temptations; all  $p$ 's  $< .01$ ). Cognitive restraint of eating, disinhibition and hunger, as measured by the Three Factor Eating Questionnaire, all demonstrated significant improvements ( $p$ 's  $< .01$ ,  $.01$ , and  $.05$ , respectively). Participants' reported similar changes on other related measures, including: overall restraint of eating (Revised Restraint Scale;  $p < .05$ ) and less binge eating (Binge Eating Scale;  $p > .01$ ). We have recently begun to collecting additional data regarding participant's readiness to change (Prochaska, 1995), which will be incorporated into treatment. In addition, we hope to replicate in our own sample, recent research findings from Duke University that showed and improvement in overall quality of life as a result of participating in a cognitive-behavioral weight management program.

These findings suggest that participants are adopting a more lifestyle oriented philosophy about weight management that is conducive to long-term weight control and improved health status. Despite these promising findings, continued longitudinal data need to be collected. We will continue to follow participants over time with respect to medical status and psychological/emotional well-being and behavioral functioning to illustrate the efficacy of treatment as well as projected long-term health care dollars saved.