

IS THERE A KNOWLEDGE THRESHOLD FOR WEIGHT CONTROL?

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Many forms of treatment of obesity are based on nutrition and health education. This broad concept rests on the assumption that poor understanding or a lack of knowledge is a major contributing factor in weight gain. A further assumption is that education will by increasing factual knowledge produce a change in food habits, reduced energy intake and weight loss. How valid an assumption this is has yet to be tested. This study aims to assess nutrition knowledge in obese subjects completing a weight control programme, and to explore the concept of a knowledge threshold for weight control.

The 'Losers are Winners' is a 10 week weight control programme built around weekly counselling sessions which involve face to face explanation of nutrition principles reinforced with written material. Nutrition knowledge was assessed on presentation to the programme and on completion using a previously validated nutrition quiz (Cronback Alpha 0.83)¹. On initial assessment demographic details were recorded for each subject.

Two hundred and eighty four obese subjects, on presentation achieved a mean quiz score of 61.1 ± 0.5 (mean \pm SEM). In this population ANOVA indicated a significant relationship between nutrition knowledge and the following: age ($p < 0.05$), sex ($p < 0.05$), education level ($p < 0.005$) and occupation ($p < 0.005$). Knowledge scores were higher for women, younger subjects, and those of higher socioeconomic status ie higher level of education and professional occupations. There was no significant relationship between degree of obesity as measured by body mass index and initial nutrition knowledge score.

In preliminary results 37 subjects completed the 10 week programme achieving a mean weight loss of 4.8 ± 0.5 (mean \pm SEM) with an initial quiz score of 66.8 ± 1.6 (mean \pm SEM) and a final quiz score of $70.00 \pm 2.4\%$. The change in nutrition quiz score (Quiz) was not significant. Furthermore there was no significant correlation between weight loss and Quiz. There was no lower threshold for initial nutrition knowledge below which weight depended on a lack of knowledge.

Therefore in obese subjects age, sex and socioeconomic status were identified as predictors of nutrition knowledge. Younger subjects, women and professionals have better knowledge. Obese subjects presenting to a weight control programme have sound nutrition knowledge. On completion of a programme weight loss is achieved. However weight control and weight loss may not be contingent on presence of or a change in knowledge. There may be no lower threshold in knowledge for weight control.

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