

THE INFLUENCE OF NUTRITIONAL ADVICE IN THE DEVELOPMENT OF INFANT OBESITY

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Nutrition in the first two years of life is of vital importance. Children whose obesity has its onset before the age of two form a distinct clinical entity (Court and Dunlop, 1975).

1. Fat growth, weight and length follow a similar but higher level than the pattern for normal children.
2. Plasma lipid concentrations are normal, but there is an increased number of fat cells.
3. Long term treatment for the obesity usually fails and most of these children grow into obese adults (Lloyd and Wolff, 1961).

Three groups of 20 (Treated, Untreated and Control) were chosen from Infant Welfare Centre records. Selection criteria for the two overweight groups were that the weight percentile followed a level at least 10% above the length percentile, or that the weight curve did not plateau as expected after the age of six months. Mean infant age on commencement of the project was nine months.

Four interviews were conducted by the same interviewer with a period of six weeks between each interview. Questions were related to attitudes and behaviour of the mother and how she perceived those of her infant. Three interviews included recall of an average day's food intake for the infant and two seven-day food diaries were completed. Physical measurements at each interview included weight, length, and skinfold measurements for triceps, biceps, subscapular and suprailiac sites. The mothers' weight, triceps measurement and demographic details were noted after interview four.

After interview two, target group mothers received a leaflet with guidelines on infant feeding, particularly weaning foods. Throughout the project, this group of mothers were encouraged to pay particular attention to nutrition.

As hypothesized, both behaviour and attitudes of the mothers receiving nutritional advice improved, especially concerning sweet foods and sugar. The attitudes and behaviour of this group moved more into line with those of the control group, while the untreated group (overweight without advice) discriminated from the other two groups. Physical measurements including skinfold, fat mass/body weight ratio and body fat as a percentage of weight support these findings. Maternal education was also shown to be important both for the infant's nutritional status and the success of advice given.

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