

## Impact of nutritional education and counselling on change in dietary habits and behaviour of middle aged diabetics

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### ABSTRACT

Diabetes mellitus is a chronic disease that has affected human kind throughout the world. The impact of education and counseling was assessed in terms of acceptance of imparted knowledge, change in quality of life, change in personal habits and inclusion/exclusion of specific hypo/hyperglycemic foods in daily diet. The results of mean per cent scores of knowledge before and after counseling in males were noted as 21.20 and 69.70 per cent and in females 15.60 and 55.19 per cent, respectively. A significant difference ( $P < 0.005$ ) was noted in the per cent knowledge scores in both the sexes before and after counseling. Highly significant ( $P < 0.005$ ) difference in the quality of life prior and after the counseling was noted with the mean score values 3.39 and 19.01 in males and 2.03 and 15.23, in females respectively. Impact of changes in terms of change in personal habits like performing exercise daily, quitting smoking, alcohol, tobacco and chewing supari were also noted and results revealed significant increase in subjects performing exercise daily. Also more than 50 per cent of the subjects dropped the habit of smoking, drinking and eating tobacco and supari. Inclusion of hypoglycemic foods like fenugreek seeds and guar gum was also noted by majority of the subjects after 3 months of counseling. Also sugar, sweets and butter were excluded by 100 per cent subjects whereas preserved products and ghee was excluded by more than 95 per cent subjects. Thus, the over all results related to the impact of nutrition education and counseling revealed a significant change in dietary habits and behaviour of middle aged diabetics.

**KEY WORDS:** Diabetes mellitus, Non-insulin dependent diabetes mellitus (NIDDM) Chronic metabolic disorder, Hypoglycemic food.

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Though economic development has resulted in general improvements in nutrition, sanitation and hygiene. These changes have led to the decline of many infectious diseases, but because of easier availability of food and decreased levels of physical activity, they have also encouraged the emergence of non-communicable diseases, notably obesity and diabetes.

Diabetes mellitus (*Madhumeha*) is a metabolic disorder disease characterized by an abnormally elevated level of blood glucose and by excretion of glucose in urine, due to an absolute or relative lack of insulin or a decrease in insulin receptors on the membrane of the target cells. The prevalence of diabetes is increasing globally. It was estimated that in world there were 135 million diabetics in the year 1995, which increased up to 177 million in the year 2002. This rising figure in absence of proper measures, is estimated to rise up to 300 million, globally till the year 2025 (WHO, 2002).

Heredity plays the most important role in conferring susceptibility to diabetes. The closer the blood relationship of a person to a diabetic, the greater are his chances of developing the disease (Braunwald *et al.*, 2000). Other factors like life style changes especially declining physical activity because of mechanization, urbanization, adoption of high fats, energy dense westernized diet, psychosocial stress and obesity have been largely responsible for the rapid increase in diabetes especially type 2 (NIDDM). The greatest incidence occurs in middle aged adults. Raghuram (1996) reported that 90-95 per cent of all the patients with diabetes were 46 years old or above. Diabetes (type 2) has been labeled as life style disease, metabolic disease, vascular disease or simply cardiovascular disease. Studies indicated that 'diabetic lane' has gradually transformed into an 'Express highway' just because of changing life trends (Iyer, 2003).

Diabetes can be controlled effectively by the means