Introduction

Introduction Diabetes is one of the major chronic diseases in Hong Kong populations, and it affects not only the elderly group but also the rising trend in the middle age group is significant. Therefore, the Risk Assessment and Management Programme of Diabetes (RAMP-DM) was established in 2010, and the dietetics service has been provided in three GOPC in KCC. Dietary management is playing a major role for diabetic control, the early stage of individual counseling, assessment and meal planning are very important to patients in achieving optimal blood glucose control and reduce long term complications.

Objectives

Objectives To evaluate the outcome and effectiveness on glycated hemoglobin (HbA1c), fasting blood glucose (FBG), blood cholesterol (TC), high density lipoprotein cholesterol (HDL), low density lipoprotein cholesterol (LDL) and triglycerides (TG) in patients after dietary intervention. Analysis was also conducted to compare the outcomes between the dietary intervention group and defaulted group (no dietary intervention).

Methodology

Methodology Diabetic patients who were highly motivated for dietetic counseling would be recruited in this programme. Patients were arranged to attend 1-2 dietary consultations focusing on individual meal planning and DM diet management that was conducted by dietitian at Yau Ma Tei Jockey Club General Out-patient Clinic (YMTJCC), Shun Tak Fraternal Association Leung Kau Kui Clinic (FALKK) and Central Kowloon Health Centre (CKHC). Some diabetic patients who defaulted to attend dietary intervention would be put into defaulted group as control. Both groups of patients regularly received the same medical treatment and nursing care. The independent paired t-test was used to compare the mean value of each data of HbA1c, FBG, TC, HDL, LDL and TG. Data of both groups were collected within six to nine months period.
**Result**

Results From November 2010 to August 2012, 705 patients were included in the dietary intervention group and 284 patients were included in the defaulted group. After 1 to 2 dietetic consultations, the mean HbA1c (8.43 to 7.37, -1.06%, P<0.05), FBG (8.34 to 7.32, -1.02mmol/L, P<0.05), TC (5.17 to 4.49, -0.69mmol/L, P<0.05), LDL (3.02 to 2.53, -0.50mmol/L, P<0.05), and TG (1.75 to 1.54, 0.22mmol/L, P<0.05) were all significantly improved. Moreover, the improvement in dietary intervention group was greater than the defaulted group especially in HbA1c (-1.06% and -0.5% respectively, P=0.015) and FBG (-1.02mmol/L and -0.3mmol/L respectively, P=0.009).

**Conclusion** Dietary intervention was effective in improving blood glucose and lipid control in diabetic patients. The RAMP facilitated easy access of dietetic service in the primary care setting. However, further study is recommended to study the long term effectiveness of dietary intervention.