

Assessing the efficacy of nurse-led multidisciplinary approach to guideline implementation - outcomes from a 5 year community based cardiovascular disease prevention programme.

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Background: With global trends of type-2 diabetes and cardiovascular disease on the increase it is imperative that new models of care to address this challenge are developed.

Purpose: Our aim was to assess the effectiveness of adopting a nurse-led multidisciplinary, integrated care approach in achieving the primary endpoints for lifestyle, risk factors and therapeutic goals as recommended by the ESC 2012 Prevention Guidelines.

Methods: Increased CVD risk patients (Heart SCORE \geq 5%, type 2 diabetes, peripheral arterial disease) and their family members or partners were invited to attend a 16-week programme consisting of a professional multidisciplinary (nurse, dietician, physical activity specialist, physician) lifestyle intervention, with appropriate risk factor and therapeutic management in a community setting. Risk factors such as smoking, body mass index (BMI), waist circumference, dietary habits and physical activity levels were assessed at initial assessment and at 1 year.

Results: Data for those who attended both initial assessment (IA) and at 1 year (1-yr) were analysed and the results are shown in Table 1.

Table 1. Change in Clinical Outcomes betw.

	Patients IA (n=390)	Patients 1-yr (n=390)	Partners IA (n=185)	Partners 1-yr(n=185)
Mean BMI (kg/m ²)	33.3	32.1 (p<0.001)	29.8	29 (p<0.001)
Mean Mediterranean Diet Score ^a	4.0	8.5 (p<0.001)	4.3	8.9 (p<0.001)
% Achieving physical targets (\geq 30mins times per week)	13.3	51.9 (p<0.001)	24.4	52.9 (p<0.001)
% of Current smokers	14.2	7.7 (p<0.001)	4.3	3.2 (p=0.50)
% Cholesterol to target (TC <5mmol/L & LDL <3mmol/L)	39	71 (p<0.001)	36	58 (p<0.001)
% Blood Pressure to target (<140/90mmHg for high risk individuals & <130/80mmHg for coronary/diabetes)	54.7	72.9 (p<0.001)	73.6	86.3 (P<0.001)
% Glucose to target in patients with diabetes	17.8	41.1 (p<0.001)	15.4	30.8 (p=0.50)

IA, Initial Assessment; 1-yr, 1 year BMI, body mass index; BP, blood pressure; TC, total cholesterol; LDL, low-density lipoprotein.

Conclusion: This study supports the existing body of evidence that multidisciplinary programmes are effective in the prevention and management of CVD. With nurses being the single largest group of healthcare professionals worldwide they have the potential to contribute in a meaningful way to tackling the global epidemic of CVD.