

## Educational level and adherence to a Mediterranean Diet in a very high risk group

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Diet is well established as a way of reducing the risk of cardiovascular disease (CVD). The Mediterranean diet (MD) has been observed as being protective against many CVDs, and its dietary principles are encouraged in secondary prevention<sup>(1)</sup>. Previous studies have suggested that socioeconomic status may be an important determinant of health<sup>(2)</sup> with higher education associated with greater adherence to a MD<sup>(3)</sup>. The aim of the present study was to determine if a higher educational status was associated with a higher a Mediterranean Diet score (MDS) in a group of very high risk individuals. Secondary aims were to determine overall adherence to the MD, blood lipid levels and overall nutrient intake.

Recruitment of participants was from a population of males and females that attended a cardiac support group in Chester, UK. A total of 65 participants were screened for study eligibility. Those meeting entry criteria of MI, coronary artery bypass graft (CABG), percutaneous coronary intervention (PCI) with or without stent were assessed for adherence to the MD using a validated 14-point questionnaire. Dietary intake was determined using the EPIC-Norfolk FFQ. Capillary blood was analysed for total-cholesterol, low-density lipoprotein cholesterol, high-density lipoprotein-cholesterol and non-high density lipoprotein cholesterol (TAG, TC, LDL-C, HDL-C and non-HDL-C, respectively). Educational status was classified as either completing school (SC) or having attended college and university (further education [FE]). All ethical procedures were approved by the Faculty of Medicine, Dentistry and Clinical Sciences research ethics committee.

Of those identified (*n* 18), 17 were willing to participate in the study. The majority of participants (*n* 14) were male. Overall adherence to the MD was poor, determined by a low MD score (MDS). No significant difference in MDS was found between SC and FE groups. Similarly there was no significant difference in TC, LDL-C HDL-C and non-HDL between SC and FE groups. There was also no significant difference in MUFA, PUFA and SFA intake between the SC and FE groups from the data collected in the FFQ.

Group	MDS		Total cholesterol		LDL-C		Non-HDL-C	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Total ( <i>n</i> 17)	7.2	2.3	4.41	0.34	1.97	0.32	3.11	0.47
SC ( <i>n</i> 11)	7.5	2.5	4.47	0.35	1.96	0.25	3.12	0.47
FE ( <i>n</i> 6)	6.5	1.4	4.30	0.26	1.98	0.39	3.08	0.42

SC, school; FE, further education; MDS, Mediterranean diet score; LDL-C low-density lipoprotein cholesterol, non-HDL-C, non-high density lipoprotein cholesterol

In conclusion, our results suggest poor adherence to a Mediterranean diet pattern in a group of individuals classed as very high risk. In our population, educational status appeared to not be linked with MDS.

1. National Institute for Health and Care Excellence [NICE] (2013) Myocardial infarction: cardiac rehabilitation and prevention of further MI. <https://www.nice.org.uk/guidance/cg172> (accessed March 2016).
2. Darmon N & Drewnowski A (2008) *Am J Clin Nutr* **87**, 1107–1117.
3. Hu EA, Toledo E, Diez-Espino J *et al.* (2013) *PloS One* **8**, e60166.