No significant differences were found for the rs1042713 (Arg16Gly) and rs1042714 (Gln27Glu) polymorphisms.

Discussion: A cohort of patients with AMI had a higher T allele frequency for SNP rs1800888 compared to the general population. This SNP in the beta 2 adrenergic receptor gene, which has previously been associated with increased cardiovascular risk, requires further investigation.

Cardiovascular Nursing Prize (017–020)

017

A Gendered Approach to Examine Cardiovascular Disease Modifiable Risk Changes Over the Life-Course for Middle-Aged and Older Australian Adults

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There has been growing interest in using risk factor indices to evaluate risk of CVD. However, there are limited studies which examine the changes of overall risk indices over the life-course, and most of studies have failed to consider the gender difference.

We used the baseline (2006-2009) and follow-up (2012-2015) data from the 45 and Up Study. CVD modifiable risk factor scores (MRFS) were developed from the existing indices, with focus on "dietary behaviour", "lifestyle behaviour" and "conditions or diseases". ANOVA was used to compare the mean difference between baseline and follow-up survey. Mixed Linear Models were used to examine the changes of MRFS across three CVD groups.

Of a total of 113,039 participants, 18.5% participants had CVD at baseline and 31.7% had CVD at follow-up. Among three MRFS components, lifestyle behaviour risks increased dramatically for both men and women over their life-course. Compared to men, women had lower MRFS, but had a greater increase across their life-course. Men and women with a long-term CVD diagnosis had lower dietary risk scores compared with those with no CVD. Compared to men with no CVD, men with long-term CVD diagnosis had 0.39 (95% CI: 0.34; 0.44) higher total MRFS; compared to women with no CVD, women with long-term CVD diagnosis had a 0.31 (95% CI: 0.26; 0.36) higher total MRFS.

Middle-aged and older women had a lower CVD risk than men but had an increased risk over their life-course. Lifestyle behaviour interventions for women need to be the focus in CVD prevention.

018

Do Social, Lifestyle and Cardiovascular Risk Factors Predict Dropout from Cardiac Rehabilitation Programs? A Longitudinal Cohort Study

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Background: While cardiac rehabilitation (CR) programs reduce the risk of further cardiac events and improve symptom management, many eligible people do not attend or do not complete these programs. Further, little is known about the characteristics of people who drop out compared to those who complete CR.

Aims: To determine the prevalence, correlates and predictors of dropout from CR.

Methods: This is an administrative database of all participants consecutively enrolled in one outpatient CR program in Sydney between 2006-2017. Items assessed included demographics, diagnoses, co-morbidities, quality of life (MOS SF-36), psychological health (DASS-21), lifestyle factors and physical assessment. Dropout was defined as those who did not complete a 6 or 12-week outpatient CR program and did not complete post CR assessment.

Results: Of 3350 who entered CR, 784 (23%) dropped out of a 6 or 12-week CR program. Smoking (OR 2.487; 95% CI: 1.951–3.170) or being divorced or separated (OR 2.066; 95% CI: 1.511-2.824) doubled the risk of dropout from CR, while younger age (<55 years) increased the risk of non-completion by 1.8 times (95% CI: 1.457–2.357). Risk factors including depressive symptoms (OR 1.448, 95% CI: 1.136–1.847) diabetes (OR 1.455; 95% CI: 1.145-1.848), sedentary lifestyle (OR 1.334; 95% CI: 1.059–1.680) and obesity (OR 1.612; 95% CI: 1.284–2.023) also increased the risk of dropout from CR.

Conclusion: To improve CR program completion rates, clinicians need to consider the impact of social, lifestyle and cardiovascular risk factors on a person's ability to adhere to CR.