

The Sutherland Division of General Practice GP Exercise Referral Scheme formal research project - report for participants

The link between physical inactivity and the development of chronic disease has been widely reported. It is estimated that approximately, 80% of the burden of chronic disease in Australia is attributed to physical inactivity. Chronic diseases most likely to result from inactivity include; cardiovascular disease; cancer, type-2 diabetes, chronic respiratory illness, mental health, musculoskeletal conditions and injury [2].

The Sutherland Shire GP Exercise Referral Scheme was started in February 2004, as a joint initiative between Sutherland Division of General Practice and the Sutherland Shire Leisure Centre (Sutherland Shire Council). The program was started to address growing levels of physical inactivity and to assist with the prevention of chronic disease. GP exercise referral schemes are widely distributed throughout the United Kingdom and have shown positive outcomes in terms of increasing physical activity. It was hoped that adapting the exercise referral scheme model in Australia would yield similar results.

In 2007, the Sutherland Division of General Practice and the University of NSW, with support from the Sutherland Shire Leisure Centres implemented a formal research project to examine the effective of the Sutherland Shire Scheme. The study aimed to determine the effect the Sutherland Shire exercise referral scheme has on increasing physical activity, adherence to physical activity, changes to related physiological outcome measures such as cardiovascular fitness, weight, blood pressure and heart rate. The study also aimed to identify features of scheme's that may influence outcomes of the schemes.

How the research project worked

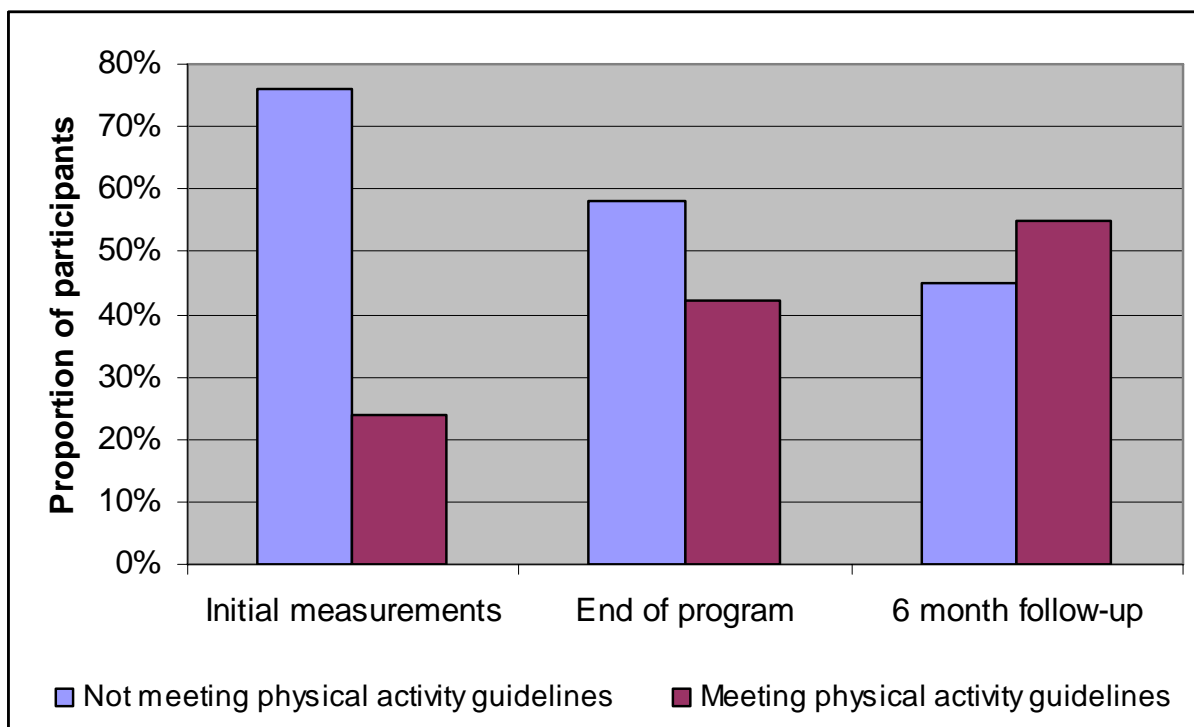
Participants were referred to the program by their GP. At the initial appointment with the exercise physiologist, a set of measures were recorded including; fitness and physiological measurements, lifestyle behaviours and general well-being. Each of these measurements were repeated at the end of the program (5 weeks) and again at a follow-up conducted 6 months after participants completed the program.

The measurements for each assessment point were then collated and analysed for differences. Differences were then compared against Australian recommended guidelines for physical activity, nutrition, alcohol consumption and smoking.

Results from the research project

There was a 18% increase (from the initial measurement) in the proportion of participants meeting the Australian recommended levels of physical activity and a 31% increase between the initial assessment and the six month follow-up assessment.

Figure 1 shows the changes in participant's levels of physical activity at the beginning and end of the program and at the 6 month follow-up



There were significant improvements in participant's cardiovascular fitness measurements taken when participants completed the program, compared with when they started the program. These changes were sustained by participants at the 6 month follow-up. There were also small improvements in some physiological, anthropometric and dietary behaviours measurements.

Figure 2 shows the changes in cardiovascular fitness at the beginning and end of the program and at the 6 month follow-up for both males and females.

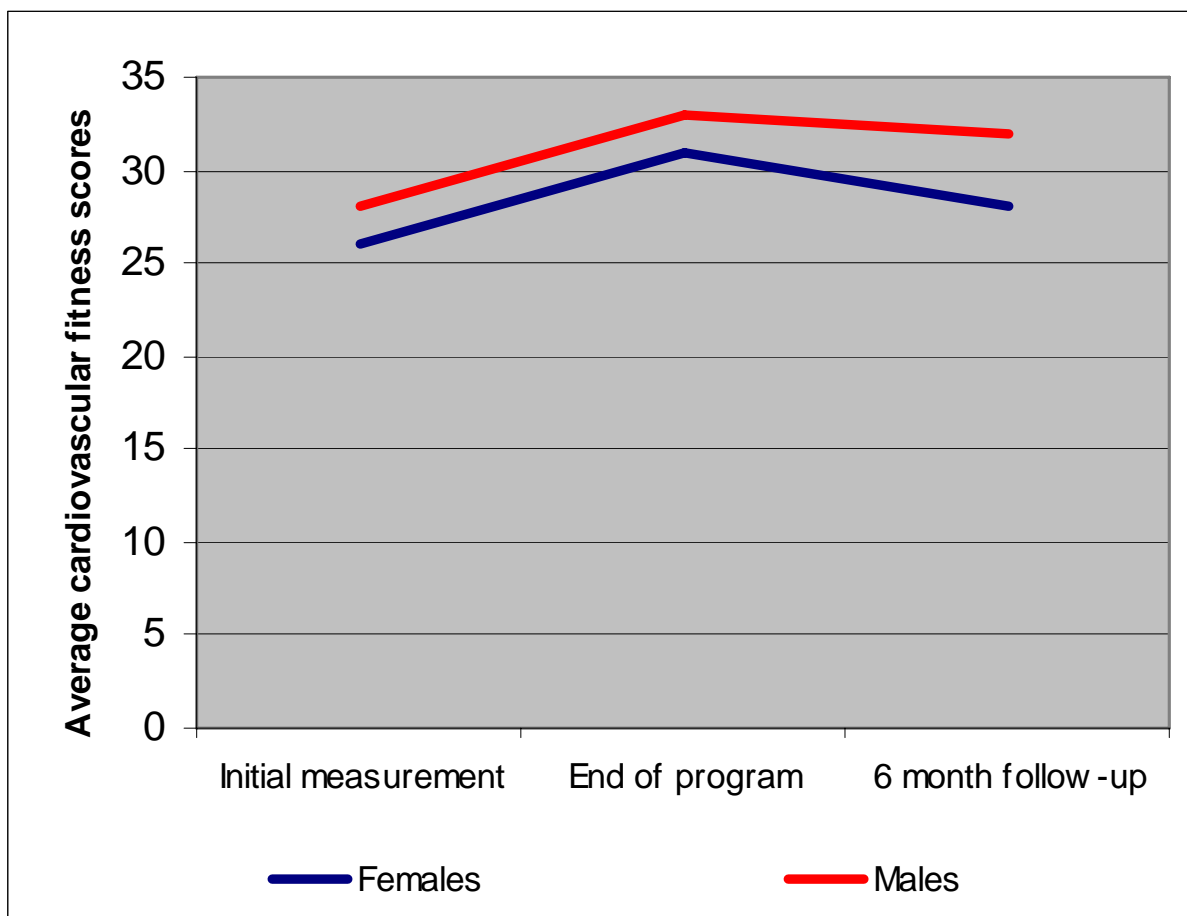
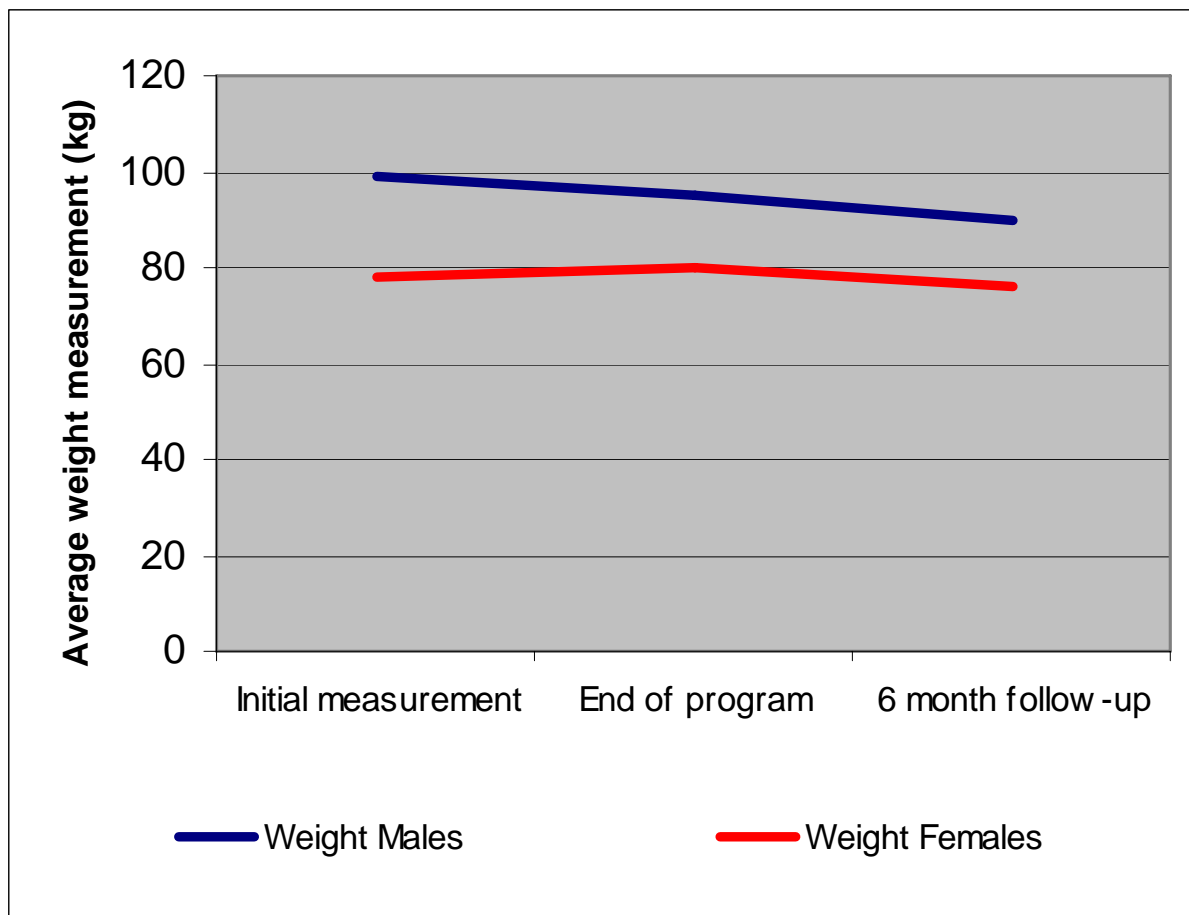


Figure 3 shows the changes in weight measurements (kg) at the beginning and end of the program and at the 6 month follow-up for both males and females



Results also showed that participants were making some changes to lifestyle behaviours other than physical activity such as increasing their fruit and vegetable intake or reducing the consumption of alcohol. However, the changes were minimal when compared against Australian recommended levels. This suggests that participants were interested in making changes to these behaviours but lacked the necessary information to meet Australian guidelines.

The study also looked at what factors influenced participation in the program. The findings indicated that people were more likely to participate in the program because the program was conducted at the Sutherland or Engadine Leisure Centres, the inclusion of the one-to-one assessment with the exercise physiologists.

What we have learned from the research

The results of this study suggest that referral to community based physical activity with support from an exercise physiologist can be effective in increasing physical activity levels short and long term for those that complete the program.

Consideration for the expansion of the program to include education about other lifestyle behaviours such as nutrition and health eating is currently underway. This is based on the findings that participants were making changes to other lifestyle behaviours but not enough to meet the Australian recommended guidelines.

Exercise referral programs can form part of strategies to increase physical activity within Australia, by utilizing the influence and position of GPs to promote to patients. Further research is required to better understand the retention in exercise referral schemes and the effectiveness of exercise referral in achieving longer term increases in physical activity.