Scottish Government Health Directorates Chief Scientist Office



CHANGES IN PHYSICAL ACTIVITY LEVELS IN A REPRESENTATIVE SAMPLE OF OLDER PEOPLE: A 2 YEAR FOLLOW UP STUDY

Researchers

Professor Marion E T McMurdo, Professor Peter Donnan, Dr Miles Witham, Dr Falko Sniehotta, Dr Thenmalar Vadiveloo, Mrs Ishbel Argo.

Aim

To determine how physical activity levels, quality of life, social networks and beliefs about physical activity change over time in a large group of older adults who had taken part in a previous CSO-funded study.

Project Outline/Methodology

Men and women aged 65 years or over who had participated in a previous study between October 2009 and January 2011 were invited to take part in a focussed repeat assessment of: quality of life (SF-36), social connections (Social Capital module), beliefs and attitudes about physical activity (extended Theory of Planned Behaviour) and to have their physical activity levels objectively measured sized with matchbox activity recorder а (accelerometer) worn at the hip during waking hours for 7 consecutive days.

Key Results

Overall 484/531 (91%) replied to the invitation and 361/531 (68%) agreed to participate in the survey. A total of 339 people, average age 77 years, 55% female participated. They were re-assessed around 3 years following their original participation. Results were examined by putting the participants into 4 groups – the young old i.e. 65-80 years, the old old i.e. over 80 years, and by level of social deprivation i.e. affluent or deprived.

Physical activity levels fell significantly in all but the young old affluent group. Improvements in social connectedness was seen in all but the affluent over 80s group. Only the affluent over 80s had a significantly less favourable attitude to physical activity at follow up. Age, activity levels in the original study in 2011, number of people you can turn to nearby, physical ability and mental health all predicted physical activity levels 3 years later.

Conclusions

Age, physical activity levels in the original study, number of people you can turn to nearby, physical

functioning and mental health all predicted physical activity 36 months following initial assessment in a representative cohort of older adults.

What does this study add to the field?

Nearly half the participants were over the age of 80 years which is most welcome, as this is the fastest growing subgroup of the older population. The over 80s are frequently excluded from research participation.

This is one of the only studies to have followed up older adults and to have objectively measured physical activity using monitors – rather than depending on self report which is notoriously unreliable.

Implications for Practice or Policy

This study has identified 5 factors which predict physical activity participation. Of these, 3 are modifiable - number of people you can turn to nearby, physical functioning and mental health. Having someone nearby to turn might be a motivator to leave their house and thereby be more socially and physically active. Low physical activity may be explained by a lack of reason to walk by virtue of simply not having people nearby that one would wish to visit. Promoting social activity may actually be a more effective way of achieving increases in physical activity than promoting activity itself.

Where to next?

A further follow up assessment of this uniquely well studied group of older adults should be performed, as there is very little longterm information about how health, quality of life and activity change in later life. Novel multi-component interventions now need to be devised targeting these factors in older adults.

Further details from:

Professor Marion E T McMurdo Ageing and Health (Mail Box 1) Medical Research Institute Division of Diabetes and Cardiovascular Medicine Ninewells Hospital and Medical School Dundee DD1 9SY

m.e.t.mcmurdo@dundee.ac.uk

Chief Scientist Office, St Andrews House, Regent Road, Edinburgh, EH1 3DG Tel:0131 244 2248 WWW.CSO.SCOt.nhs.uk