

The Irish Longitudinal Study on Ageing

RESEARCH BRIEF

PHYSICAL ACTIVITY IN COMMUNITY-DWELLING OLDER

IRISH ADULTS

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JANUARY 2016

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PHYSICAL ACTIVITY IN COMMUNITY-DWELLING OLDER IRISH ADULTS ⁱ

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Physical activity is widely recommended as an essential component of a healthy lifestyle at all ages. The National Guidelines on Physical Activity for Ireland recommend that all adults take part in at least 30 minutes of moderate intensity activity on five days per week, to total at least 150 minutes per week ³. Total activity can be accumulated across multiple sessions of at least 10 minutes. In addition, adults aged 65 years and older should add muscle strengthening and balance exercises on two days per week to reduce the risk of falls ³. Walking is the most common and accessible activity for older adults and brisk walking for 150 minutes per week is also sufficient to meet these physical activity guidelines.

There is strong evidence supporting the health benefits of physical activity in adults aged 65 years and over. This evidence shows that more physically active older adults have increased cardiorespiratory and muscle fitness, lower body fat, a more favourable metabolic profile and lower rates of cardiovascular disease (including high blood pressure, stroke, type 2 diabetes), cancer (colon and breast), and all-cause mortality. In addition, older adults who are physically active have better cognitive function and functional health and a lower risk of falling ⁴, improved mental health and quality of life ⁵. Social participation and engagement is also an important component of successful ageing, however this area tends to receive less attention than the physical health benefits.

Data from the first wave of The Irish Longitudinal Study on Ageing (TILDA) provides a unique opportunity to examine the many factors associated with physical activity in a nationally representative sample of community-dwelling older adults in Ireland.

We examine:

- (i) the associations between physical activity and social participation and wellbeing in adults aged 50 years and over ¹ and;
- (ii) if socio-demographic, social, physical health, mental health or environmental factors have the strongest associations with physical activity in the Irish population aged 65 and over ².

ⁱ This Research Brief draws on two recently published papers that look at different aspects of physical activity in older people in Ireland ^{1,2}.

HOW WAS PHYSICAL ACTIVITY MEASURED AND HOW ACTIVE ARE PEOPLE IN IRELAND?

Participants completed a face-to-face interview during which physical activity was measured using the short form International Physical Activity Questionnaire (IPAQ). They were asked to indicate the number of days and typical time per day spent sitting, walking and doing physical activities of vigorous or moderate intensity during the last week ⁶. Participants were then classified as having High, Moderate or Low Activity levels based on established criteria. Participants were considered sufficiently active if they walked for at least 150 minutes during the last week.

Overall, one third of the Irish population aged 50 years and over meet the criteria for high activity levels, one third have moderate activity levels and one third have low activity levels. Men are more likely to report high activity levels than women (41% versus 26%) and less likely to report low activity levels (27% versus 40%). Irish adults are less likely to report high physical activity levels as they get older and this is especially evident in women where 31% of those aged 50-64 years report high physical activity compared to 11% of those aged 75 years and older. Approximately two in five men (42%) and three in five (59%) women aged 75 years and older report low activity levels ¹.

How does physical activity affect health, social participation and wellbeing?

Irish adults who report higher levels of physical activity (or those who walked for at least 150 minutes in the last week) have better self-rated health and quality of life, lower loneliness scores and are more likely to participate in social activities including volunteering. Notably, those with low activity levels are over twice as likely to report clinically relevant depressive symptoms compared to those with high activity levels (14% versus 6%)¹. In addition, higher physical activity was associated with less time spent sitting, higher grip strength, less disability in daily activities, lower body mass index (BMI), less anxiety and higher cognitive ability². Many of these factors are modifiable and can be improved through regular exercise. These findings also provide a profile of those who are less active which should ensure that the appropriate groups are targeted for intervention as part of health promotion campaigns and initiatives. This includes females as well as people who are depressed , those who are overweight and those who are not members of a non-church social group ².

WHY IS SOCIAL PARTICIPATION AND WELLBEING SO IMPORTANT?

People who are more socially engaged and integrated within society have better physical and psychological function and are less likely to die than those who are socially isolated. It has been suggested that a lack of social relationships has the same negative effect on health as established risk factors for poor health such as physical inactivity, obesity, smoking and high blood pressure ⁷. Future waves of data collection are required to analyse the longer term changes in activity patterns and to determine if increased physical activity leads to greater social participation and wellbeing, or vice versa. It is possible that these psychological benefits result from greater social engagement which is facilitated by the health and functional benefits accrued through greater levels of physical activity. Regardless of the causal pathways, these results highlight that physical activity plays a key role in an individual's holistic wellbeing. Regular physical activity appears to be the most likely and suitable lifestyle behaviour to maintain and improve physical and psychological health and social engagement ⁵.

WHAT DO THESE FINDINGS MEAN?

These findings have important implications for policymakers and practitioners:

- (i) High levels of overweight and obesity have previously been reported in these middleaged and older adults ⁸, highlighting the need to promote increased physical activity in this group.
- (ii) Higher levels of physical activity are associated with better physical and mental health and higher levels of social participation and wellbeing. Physical activity such as brisk walking is the easiest lifestyle behaviour to incorporate into a daily routine to achieve these benefits.
- (iii) These findings support current initiatives such as Get Ireland Active and Get Ireland Walking and highlight the vital contribution that future policies to promote physical activity can make to optimising health and wellbeing amongst the ageing population.
- (iv) Interventions should specifically target women, older adults, those in employment, those who are not engaged in social activities and those living in built up areas such as apartments.

- Donoghue O, O'Connell M, Kenny RA. Walking to Wellbeing: Physical Activity, Social Participation and Psychological Health in Irish adults aged 50 years and Older. Dublin: The Irish Longitudinal Study on Ageing (TILDA), 2016.
- 2. McKee G, Kearney PM, Kenny RA. The factors associated with self-reported physical activity in older adults living in the community. *Age and Ageing*, 2015; 44(4),586-592.
- Department of Health and Children. Get Ireland Active Guidelines, 2009. Available from: <u>http://www.getirelandactive.ie/content/wp-content/uploads/2011/12/Get-Ireland-Active-Guidelines-GIA.pdf</u>.
- World Health Organisation. Global Recommendations on Physical Activity for Health, 2010.
- Chodzko-Zajko WJ, Proctor DN, Fiatarone Singh MA, Minson CT, Nigg CR, Salem GJ, et al. American College of Sports Medicine position stand. Exercise and physical activity for older adults. Medicine and Science in Sports and Exercise. 2009; 41(7):1510-30.
- Craig CL, Marshall AL, Sjostrom M, Bauman AE, Booth ML, Ainsworth BE, et al. International physical activity questionnaire: 12-country reliability and validity. Medicine and Science in Sports and Exercise. 2003; 35(8):1381-95.
- House JS, Robbins C, Metzner HL. The association of social relationships and activities with mortality: prospective evidence from the Tecumseh Community Health Study. American Journal of Epidemiology. 1982; 116(1):123-40.
- Leahy S, Nolan A, O'Connell J, Kenny RA. Obesity in an Ageing Society: Implications for health, physical function and health service utilisation. Dublin: The Irish Longitudinal Study on Ageing; 2014.

Researchers interested in using TILDA data may access the data for free from the following sites:

- Irish Social Science Data Archive (ISSDA) at University College Dublin http://www.ucd.ie/issda/data/tilda/
- Interuniversity Consortium for Political and Social Research (ICPSR) at the University of Michigan http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/34315