A cross-sectional analysis of physical activity patterns, aerobic capacity and perceptions about exercise among male farmers in the mid-west region of Ireland

Authors:
T Loughman¹, G Flaherty², A Houlihan³, D Dunne³, ¹National University of Ireland - Galway - Ireland, ²National University of Ireland, School of Medicine - Galway - Ireland, ³National Institute of Preventive Cardiology - Galway - Ireland,

Topic(s):
Physical Inactivity and Exercise

Citation:
Background and Aims: In Ireland, farmers have been identified as a high-risk population, with higher rates of cardiovascular disease (CVD) and overall mortality, compared with the general population. This contrasts with trends from previous decades. Yet, little research exists as to why farmers are now at increased risk. Farming has always been considered a physically active lifestyle. However, the increased use of machinery may mean that farmers are not completing as much physical activity (PA) as before. This study aimed to investigate PA patterns, aerobic capacity and perceptions about exercise among Irish farmers.

Design: A cross-sectional quantitative study.

Methods: PA levels were assessed using activPAL3 micro monitors for a duration of seven consecutive days. Aerobic capacity was measured using a validated sub-maximal exercise test, to calculate Metabolic Equivalent Task (MET) levels. The Exercise Benefits and Barriers Scale (EBBS) questionnaire was used to explore perceived benefits and barriers towards exercise.

Results: Farmers (n=28) completed a mean (standard deviation (SD)) of 16,452 (5,170) steps and 124(43) minutes of moderate-vigorous intensity physical activity (MVPA) daily. The volume of MVPA was largely accumulated in bouts lasting <10 minutes, with only 17.89% completing any bouts =10minutes throughout the week. Mean (SD) daily waking sitting time was 8.26 (1.6) hours. Farmers were aerobically fit with all farmers, who undertook the exercise test (n=20), having a predicted MET max >10. Participants (n=23) had positive perceptions about exercise with a mean (SD) total EBBS score of 132(14).

Conclusions: Farmers are aerobically fit and have positive perceptions about exercise. They complete a large volume of PA, based on steps and minutes of MVPA. However, farmers' PA patterns are not optimal for CVD prevention. Farmers risk could be reduced by sitting less and completing MVPA bouts =10minutes, in line with current guidelines.