

An evaluation of the health-behaviours of farmers in the South-East of Ireland

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Introduction

Farming has traditionally been considered to be an active outdoor profession with largely positive health outcomes (Blair *et al.*, 2005). Yet a recent evaluation of Irish population and mortality data over the period from 2000 to 2006 has indicated that of all occupational groupings, farmers and agricultural workers have the highest all-cause mortality rate and should therefore in themselves be considered a high risk group (Smyth *et al.*, 2013). Within this study the highest standardised mortality ratios were reported for the behaviour-related chronic diseases: cardiovascular disease and cancer. The aim of the present study was to investigate the health behaviours that distinguish farmers from the general population as reported in the Survey of Lifestyles, Attitudes, and Nutrition (SLAN) in Ireland (Morgan *et al.*, 2008), which may contribute to the differential in mortality statistics.

Methods

A self-administered paper-based questionnaire was used to obtain cross sectional data on the health and health behaviours of farmers in the South-East of Ireland. A total of 366 farmers attending either Teagasc organised training courses or Irish Farmers' Association meetings between March and August 2013 completed the questionnaire. Non-probability quota sampling was the selection method employed in the study. The questionnaire was a modified version of the SLAN. It contained sections evaluating general health, physical activity (PA), smoking and alcohol consumption. Chi-squared comparisons were made between health behaviours of farmers the general population as reported in SLAN. Questionnaire results are presented together with general population data (Pop.), chi-squared and two-tailed significance (in parentheses). The study was approved by the Research Ethics Board of Waterford Institute of Technology.

Results and Discussion

The sample included 316 male and 50 female respondents with a combined mean age of 42 ± 14.1 (SD) years. Of the total sample, 64% of farmers (Pop.=58%; $\chi^2=5.1$; $p=0.02$) reported their health as being 'very good' or 'excellent' and only 0.5% (Pop.=3%; $\chi^2=7.5$; $p<0.01$) reported poor health. Five per cent (Pop.=11%; $\chi^2=13.6$; $p<0.01$) said that their daily work/activity was restricted by a long-term health problem or disability, yet 39% (Pop.=38%; $\chi^2=0.2$; $p=0.68$) of respondents reported some form of health complaint within the past 12 months. Thirty-four percent reported a physical health complaint and 12% reported mental health issues. Low back pain (LBP) was the most prevalent physical complaint occurring in 28% of farmers (Pop.=16%; $\chi^2=36.3$; $p<0.01$). Fifty-nine

percent of farmers (Pop.=74%; $\chi^2=40.7$; $p<0.01$) had consulted their GP about their health within the last year. According to self-report measures of height and weight, the body mass index (BMI) of 43% (Pop.=36%; $\chi^2=7.3$; $p<0.01$) of respondents were classified as overweight (BMI 25.0 – 29.9 kg.m⁻²), while 17% (Pop.=14%; $\chi^2=2.5$; $p=0.11$) were obese (BMI >30kg.m⁻²). Despite 60% being classified as overweight or obese, just 27% believed that they were too heavy. Fifty-four percent of farmers (Pop.=24%; $\chi^2=170.7$; $p<0.01$) achieved high levels of PA, 24% (Pop.=47%; $\chi^2=75.0$; $p<0.01$) moderate and 22% (Pop.=29%; $\chi^2=8.1$; $p<0.01$) low PA. Thirty-nine percent (Pop.=48%; $\chi^2=11.3$; $p<0.01$) reported that they had smoked at some point in their lives, while 18% (Pop.=29%; $\chi^2=20.8$; $p<0.01$) were current smokers. Of those who previously smoked, 26% had stopped smoking within the past year. Eighty-five percent (Pop.=80%; $\chi^2=5.5$; $p=0.02$) of farmers reported drinking alcohol on some occasions. 19% (Pop.=28%; $\chi^2=13.9$; $p<0.01$) of farmers reported binge drinking (having 6 or more standard drinks on one occasion) at least once per week.

Conclusions

Farmers' self-perception of their health is good, although they perhaps do not fully acknowledge or address ill-health. Prevalence of LBP is significantly greater than in the general population. While PA, smoking and alcohol behaviours are healthier than the general population, there is a higher prevalence of overweight and obesity. In addition to being an independent risk factor for chronic disease, overweight is also a risk factor for LBP. As LBP-associated disability can precipitate other comorbidities (Schneider *et al.*, 2007), farmers should pay attention to their risk factors for LBP including body weight and manual handling techniques, particularly in the context that lifting and carrying are integral components of farming activity.

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References

- Blair, A., Sandler, D.P., Tarone, R., Lubin, J., Thomas, K., Hoppin, J.A., Zahm, S.H., Lynch, C.F., Rothman, N., Alavanja, M.C.R. (2005). Mortality among participants in the agricultural health study. *Annals of Epidemiology*, 15(4): 279–85.
- Morgan K., McGee H., Watson D., Perry I., Barry M., Shelley E., Harrington J., Molcho M., Layte R., Tully N., van Lente E., Ward M., Lutomski J., Conroy R., Brugha R. (2008) SLÁN 2007: Survey of Lifestyle, Attitudes & Nutrition in Ireland. Main Report. Dublin: Department of Health and Children.
- Schneider S., Mohnen S.M., Schiltenwolf M., Rau C. (2007) *Eur J Pain*. 11(4):387-97
- Smyth, B., Evans, D.S., Kelly, A., Cullen, L. & O'Donovan, D. (2013) *Eur J Public Health*. 23(1):50-55