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Correspondence between self reported and GP coded alcohol consumption

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Introduction

Self reported data on health is often burdensome and expensive. Administrative data provides inexpensive global coverage of health and is less prone to social desirability for behaviors such as alcohol consumption. Recent studies have found varying correspondence between self-reported and administrative data for a number of chronic and acute conditions.

Objectives and Approach

We sought to test the agreement between self-rated heavy drinking (35+ units for women, 50+ for men) and primary care physician (GP) coded (Read mapped ICD-10 codes) heavy drinking, and their association with alcohol related hospital admissions.

We assessed agreement between self-reported and GP coded heavy drinking data, from a prospective UK cohort and linked GP and hospital data using Cohen's kappa (95% CI). Then using Cox regression we the compared the time to alcohol related admission for both. Goodness-of-fit was assessed using AIC.

Results

Of the 10,892 participants a total of 6,609 were linkable to both the Hospital Admissions database (PEDW) and the GP practice data, with no systematic differences between those linked and not. The sample were mostly female (57%) with a mean age of 48.2 years (SD = 15.5). In total there were 81 alcohol related admissions, with 2.7% classified as heavy drinkers by GPs and 31.7% self-rated. There was poor agreement between raters (K=0.044; 95% CI = 0.037, 0.050). GP coded heavy drinking was strongly associated with admission (β = 1.90 95% CI 1.34, 2.58, AIC = 1350.71), as was self-rating (β = 1.14 (5% CI 0.67, 1.62, AIC = 1358.19).

Conclusion/Implications

The low levels of agreement but similar AICs suggest that self-rated and GP classification are measuring a similar construct but at different levels. This analysis suggest that routinely collected GP ratings of heavy drinking may be a cheaper and more efficient method of assessing heavy drinking at a population level.

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