DO IMPRECISE MEASURES OF ALCOHOL INTAKE INFLUENCE DRINKING RECOMMENDATIONS RELATING TO ISCHAEMIC HEART DISEASE?

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Objective: To establish whether measurement error introduced by imprecise measurement of alcohol intake introduces may lead to incorrect guidance on safe levels of alcohol consumption.

Design and Setting: Using repeat alcohol intake from the United Kingdom Women’s Cohort Study, a prospective, longitudinal cohort of UK women recruited in 1995.

Participants: 33,752 women reporting alcohol intake using both frequency and quantity of specific drinks flagged with the Office for National Statistics. Repeat questionnaires were available on 1918 women (5%).

Main Outcome Measures: Death from ischaemic heart disease, fitting a fractional polynomial logistic regression model to the expected nonlinear curve, adjusting just for age at baseline.

Results: The mean age of the women at baseline (in 1995) was 52 (SD = 9). Mean alcohol intake was 9 (SD = 11) g/day, i.e. a mean of approximately one unit of alcohol per day, or seven units per week. The intraclass correlation between repeat measures of alcohol intake was 0.79 (95% CI 0.77 to 0.80). 133 women died from ischaemic heart disease. Without correction for measurement error, the estimated range of protective effect of alcohol consumption (compared to non-consumers) was from 0 to 89 g/day (11 units/day), statistically significant (p<0.05) up to 46 g/day (6 units/day), and with the lowest point of the curve at 13 g/day (1.6 units/day). With correction for measurement error, the estimated range of protective effect of alcohol consumption (compared to non-consumers) was lower than without adjustment for measurement error, from 0 to 55 g/day (7 units/day), statistically significant up to 37 g/day (5 units/day), and with the lowest point of the curve at 8 g/day (1 unit/day).

Conclusions: Adjusting for measurement error led to protective effects at substantially lower intakes than ignoring measurement error. Current guidelines recommend limiting alcohol intake for women to less than 16 to 24 g/day, stating that 1 to 2 units/day can help protect against coronary heart disease, but these ignore measurement error. Correction for imprecise measures of long term alcohol intake may lead to substantially reduced recommended limits.

SOCIAL HIERARCHIES IN YOUTH: SCHOOL-BASED PEER HIERARCHIES ARE MORE IMPORTANT THAN FAMILY SOCIOECONOMIC STATUS FOR STRESS (CORTISOL)

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Background: Psychosocial explanations for socioeconomic status (SES) differences in health draw on non-human primate research to demonstrate how position in the social hierarchy is related to stress, as measured by cortisol. In stable social systems, stress is elevated in subordinate positions; in less stable systems, higher positions may also be stressful. In addition to their SES position, young people are involved in multiple school-based social hierarchies, each of which may have different implications for stress.

Objective: To examine the relationship between morning cortisol and social position in school-based peer hierarchies compared with that of family SES in youth.