

Does the total alcohol consumption in a population determine the number of heavy drinkers - or is it a case of the tail wagging the dog?

It is widely believed that a country's total alcohol consumption (commonly reported as per capita volume of 100 per cent alcohol per year) determines the number of heavy drinkers and thus also the degree of alcohol-related health problems. This view goes under the name of total consumption model. It is often the basis of health policies. To me this seems like the tail wagging the dog. I think it is more likely that alcohol intake patterns in various consumer groups determine the total alcohol consumption in a population. To evaluate these two contrasting explanations, I studied the associations between the total consumption and the numbers of abstainers, alcohol dependents and heavy episodic drinkers, looking at both directions of assumed causality. Data for 29 OECD countries in 2010 were obtained from WHO Global Health Observatory data repository and Statistics OECD.

Assuming the total consumption to be the outcome (effect), a regression analysis showed that the former was significantly associated with the number of abstainers and that of alcohol dependents, but not with heavy episodic drinkers. Assuming the total alcohol consumption to be the cause, it was found that the former was associated with the number of alcohol dependents, but did not determine the number of non-dependent heavy episodic drinkers.

Cross-sectional comparisons, such as the present study and most evidence supporting the total consumption model, do not permit clear conclusions about the direction of causality. Nevertheless, the present findings cast doubt on the validity of the total consumption model. The latter model has focused on all heavy drinkers, failing to make a distinction between heavy episodic drinkers and other heavy drinkers, such as those with frequent moderate episodes, resulting in high average alcohol intake. Moreover, the model has not taken into account abstainers and alcohol dependents. The present findings speak against the total consumption model. This is also supported by follow-up studies, reported elsewhere, showing that alcohol dependence but no other pattern of drinking predicts all-cause mortality.

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[Does the Tail Wag the Dog? Abstainers, Alcohol Dependence, Heavy Episodic Drinkers and Total Alcohol Consumption.](#)

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