

LETTER

doi:10.1017/S1041610214001513

The hidden harms of using alcohol for pain relief in older adults

Estimates from population-based studies indicate that older adults drink more frequently than younger age groups. Data from the 2010 Australian national household survey reported that daily drinking was evident in 13.3% of older adults aged 60–69 years and in 14.8% of older adults aged 70+ years. These findings are compared to daily drinking rates reported by 10.1% of adults aged 50–59 years and 7.5% in the 40–49 years age range (Australian Institute of Health and Welfare, 2011). The study of alcohol consumption in older adults is particularly important because of their increased sensitivity to alcohol-related harms. With age, the body's ability to process alcohol decreases as a result of physiological changes, such as decreases in body mass and higher levels of fatty tissue, leading to a higher blood alcohol concentration for a given dose compared with younger adults (National Institute on Alcohol Abuse and Alcoholism, 1998). This greater vulnerability to the effects of alcohol necessitates a stronger understanding of drinking practices in older adults.

Research has shown that some older adults use alcohol as a method of coping, to avoid the experience of a negative internal state. Recent findings suggest that some older adults use alcohol to cope with the experience of pain. Pain can have a significant effect on functioning and quality of life, and is highly prevalent in older adults who often have multiple co-morbidities and consequently take multiple medicines (McLachlan *et al.*, 2011). A number of alcohol-related risk indicators in older adults are associated with use of alcohol for pain relief. In a longitudinal study of community-dwelling older adults, Moos *et al.* (2010) found that a greater reliance on alcohol to reduce pain was linked to greater alcohol consumption (both quantity and frequency) and a greater number of drinking problems over a 10- and 20-year period. Cross-sectional findings by Brennan *et al.* (2005) also supported these associations.

What is of interest in our own study is that support for these associations was found within an Australian sample, and that a number of additional harms are associated with this type of drinking. We conducted a cross-sectional postal survey on a sample of community-dwelling older adults

(60 years and above) about their physical and mental well-being, and patterns of alcohol consumption (using the AUDIT-C). We included specific questions on pain that were based on a review of existing measures, and included items on duration, frequency, intensity, interference with everyday life, and whether alcohol had been used to reduce pain (i.e. to receive relief from pain) in the previous 12 months. This study formed part of the Rural Health Promotion Project, which is a large longitudinal study on mental health and well-being in Australia. Participants were randomly selected from the electoral rolls of Victoria and New South Wales, and questionnaires were mailed to those who had agreed to be contacted for future waves of data collection and met the age criterion of 60 years and above ($N = 1,206$). From the 422 participants who responded, 410 (158 males, 252 females) provided data on their typical alcohol consumption levels and are the focus of this letter.

Our results indicated that 11.2% of females and 32.1% of males were hazardous drinkers. We also found that 305 (72%) participants reported pain in the previous 12 months and 273 (65%) of participants reported that the pain was recurrent. There were 17 participants (5.6%) who consumed alcohol to self-medicate their pain. We compared these 17 participants with those who experienced pain but did not self-medicate this experience with alcohol. Results indicated that this small group experienced significant co-morbidity and were at substantial risk for a number of poor outcomes. Their pain had a greater intensity ($p = 0.004$) and interference with daily life and activities ($p = 0.001$), and they reported to have poorer physical health as measured by the SF-12 ($p = 0.05$). These health-related indicators showed significant positive associations with the decision to self-medicate with alcohol. We also found significantly higher levels of depression ($p = 0.001$) and anxiety symptoms ($p = 0.001$) as measured by the Centre for Epidemiological Studies-Depression Scale and the Geriatric Anxiety Inventory. The significantly higher levels of alcohol consumption provide further evidence for the co-morbidity of this group. The average mean score on the AUDIT-C was 5.89 in males ($SD = 2.4$) and 3.7 in females ($SD = 1.5$) compared to 2.92 in males ($SD = 2.7$) and 1.6 in the females ($SD = 1.7$) who did not use alcohol to treat their pain. Applying an AUDIT-C cut-off score of ≥ 3 for women and ≥ 4 for men suggests that hazardous drinking

was much more evident within this small group. Furthermore, it is likely that these individuals would also concomitantly take a number of medications (e.g. analgesics), which would increase the risk of alcohol-related harms and the morbidity profile of this subgroup.

Our study provides the first preliminary data on a specific subgroup of Australian older adults who drink alcohol to reduce their pain in the presence of mental and physical health difficulties and greater levels of typical alcohol consumption. Although we cannot attribute causality to the complex relationships between pain, drinking to self-medicate the pain, poor mental and physical health, and risky alcohol use, the results indicate that there is great clinical importance in health professionals discussing the experience of pain with older adults and enquiring as to whether alcohol is ever used for pain relief. It would be useful to develop and educating older adults on the potential harms of consuming alcohol for this purpose, particularly when medications are taken and/or physical and mental health is poor. Notwithstanding the limitations of our study, including the cross-sectional design and small numbers of self-medicating drinkers, the data reported in this study were collected from a community sample, and it is likely that these findings would be particularly relevant in clinical samples, who may be more likely to drink to relieve pain than that reported in the current study. Further research using a larger sample is needed to strengthen the results of our preliminary findings.

Conflict of interest

None.

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