Clinical review

Alcohol use disorders in elderly people—redefining an age old problem in old age

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Alcohol use disorders in elderly people are common and associated with considerable morbidity. The ageing of populations worldwide means that the absolute number of older people with alcohol use disorders is on the increase, and health services need to improve their provision of age appropriate screening and treatment methods and services

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Media attention and public health initiatives related to alcohol use disorders tend to focus on younger age groups.[1–3] However, alcohol use disorders are common among elderly people and are associated with notable health problems.[2] Furthermore, in elderly people they are often underdetected and misdiagnosed[4] as screening instruments and diagnostic criteria are geared towards younger people.[5]

The ageing of populations worldwide means that the absolute number of elderly people with alcohol use disorders is on the increase,[6] and a real danger exists that a "silent epidemic" may be evolving.

Summary points

- Alcohol use disorders in elderly people are common and are associated with notable health problems
- The ageing of populations worldwide means that the absolute number of older people with alcohol use disorders is on the increase
- Alcohol use disorders in elderly people are underdetected and misdiagnosed for various reasons
- They are associated with notable impairments in physical, social, psychological, and cognitive health
- Inpatient detoxification is recommended for elderly people
- Information on the use of abstinence medications in elderly people is limited
- Alcohol treatment for elderly people may be more appropriate among their peers
- Recommended limits for intake, screening instruments, and diagnostic criteria must be redefined for elderly people

Methods

We searched PubMed for research papers and review articles in the area of alcohol use disorders in elderly people.

How common is the problem?

The prevalence of alcohol use disorders in elderly people is generally accepted to be lower than in younger people, but rates may be underestimated because of underdetection and misdiagnosis, the reasons for which are many and varied.[7] The cross sectional nature of prevalence studies also means that a cohort effect cannot be ruled out. For example, the drinking habits of Americans from the 1920s may differ substantially from those from the era after the second world war because of the effects of prohibition.[8]

Most prevalence studies have been carried out in North America, and results may not be generalisable to other cultures.[7] Rates of alcohol use disorders also vary depending on the restrictiveness of diagnostic criteria used, with higher rates for "excessive alcohol consumption" and "alcohol abuse" than "alcohol dependence syndrome." For example, community based studies have estimated the prevalence of alcohol misuse or dependence as 2-4%,[9] with much higher rates of 17% (men) and 7% (women) when looser criteria such as excessive alcohol consumption are used.[10] For hospital based studies, the same difficulties abound as the definitions for alcohol use disorders are not clearly specified in many studies. In general, however, the prevalence for elderly inpatients is higher than for elderly people in the community, with estimates of 14% for patients in emergency departments, 18% for medical inpatients, and 23-44% for psychiatric inpatients.[11] Among elderly people, sociodemographic factors associated with alcohol use disorders include being male,[12 13] socially isolated,[14] single,[14 15] and separated or divorced.[16]

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Moderate drinking may be beneficial

Reasons for underdetection and misdiagnosis

The reasons for underdetection and misdiagnosis of alcohol use disorders in elderly people are many and varied. One primary care study identified 10% of older patients as having current evidence of alcoholism, yet fewer than half of these patients had documentation of alcohol misuse in their medical records.[17] Elderly people may be less likely to disclose a history of excessive alcohol intake,[18] and the problem is compounded by the fact that healthcare workers have a lower degree of suspicion when assessing older people.[19] Furthermore, healthcare workers are less likely to refer elderly people for specialist treatment.[20] Healthcare workers may perceive alcohol use disorders in older people as being understandable in the context of poor health and changing life circumstances,[21] which leads to therapeutic nihilism when they are confronted with such problems.

The presentation of elderly people with alcohol use disorders may be atypical (such as falls, confusion, depression) or masked by comorbid physical or psychiatric illness,[2] which makes detection all the more difficult.

Sensible limits for weekly alcohol intake (for example, 21 units for men and 14 units for women) may not apply to older people because of age related changes in metabolism, advancing ill health, and increased sensitivity to the effects of alcohol.[2] Although the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in the United States recommends that people older than 65 consume no more than one drink per day,[6] limits appropriate to age have not been established for older people elsewhere but are likely to be lower than those for younger people.

Likewise, the features of alcohol use disorders identified by screening questionnaires (for example, CAGE,[22] MAST-G,[23] AUDIT[24]), biophysical screening measures (for example, mean corpuscular volume and γ-glutamyltransferase),[25] and diagnostic classification systems (international classification of diseases, 10th revision and *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition) may not apply to elderly people because of changing roles, life circumstances, and differing health characteristics. For example, elderly people may be less likely than younger people to encounter the social, legal, and occupational complications associated with alcohol use disorders and more likely to encounter adverse physical health consequences.[2]

Furthermore, diagnostic criteria and screening instruments tend to focus on current levels of alcohol intake. An accurate assessment of lifetime alcohol consumption is essential when assessing alcohol use disorders in elderly people.[26] All of these factors are likely to result in underdetection of alcohol use disorders in elderly people and give false impressions of the true extent of the problem.

Effects of alcohol use disorders in elderly people

Alcohol use disorders in elderly people are associated with widespread impairments in physical, psychological, social, and cognitive health. Age related changes in body composition means that, while absorption, metabolism, and excretion of alcohol are largely unchanged, equivalent amounts of alcohol produce higher blood alcohol concentrations in older people.[2]

Serious medical disorders among elderly people who misuse alcohol are much more common than among the overall population of a similar age.[27] The associations with having ever been a heavy drinker have been shown to be long lasting: areas shown to be affected include having more major illnesses, poorer self perceived health status, more visits from the doctor, more depressive symptoms, less satisfaction with life, and smaller social networks than non-heavy drinkers and people who have never drunk.[28] A risk of overinterpreting these results exists, however, since reverse causality cannot be excluded and subjects with poorer health characteristics may be more likely to drink in the first place.

Potential health benefits

Prominence has been given in recent years to the potential health benefits of alcohol. Light to moderate consumption of alcohol has been shown to be associated with a reduction in the risk of coronary heart disease, stroke, and dementia even after extensive adjustment for personal physical and demographic factors.[29] However the personality profiles and social characteristics of those who drink moderately may differ substantially from those of non-drinkers or heavy drinkers and have been less extensively studied. It is possible that these modify this apparent protective effect.[30]

Treatment of alcohol use disorders in elderly people

Historically, few studies of treatment for alcohol use disorders have included older people.[2] However, research into treatment is increasing, because of growing recognition of the prevalence of alcohol use disorders in elderly people.[2] Elderly people have been shown to be at least as likely to benefit from treatment as younger people,[19] and knowledge of this fact may

The warfarin clinic

Following a recent talk on alcohol use disorders in the elderly in our hospital, a nurse working in the warfarin clinic made some points about her group of patients that highlighted a number of relevant issues. Some patients who had recently started taking warfarin had an abnormal international normalised ratio for several months for no apparent reason. When the nurse asked them about their alcohol intake some of these patients, most often men, agreed that they were drinking alcohol regularly but had not realised that their alcohol intake interfered with their anticoagulant treatment. Following advice from the nurse, they were able to cut down or stop their drinking, and they reported improved physical and psychological health subsequently.

Issues raised by this example

- Alcohol use disorders in the elderly are more common among men
- "Sensible" levels of intake as defined for the general population may be harmful for some individuals, especially older people receiving certain medications and with health problems
- Drinking histories are not always taken routinely
- Older people may be reluctant to disclose details of their drinking and lacking in knowledge of the effects of alcohol intake on different aspects of their health
- Elderly people can change their drinking behaviours and may derive considerable health benefits as a result

help to combat the therapeutic nihilism associated with alcohol use disorders in elderly people.

Treatment for alcohol use disorders can be divided into the physical or medical and the psychological. Physical treatments can be further divided into treatments used in the acute setting and those used in prophylaxis. In view of the high degree of medical comorbidity and increased severity and duration of alcohol withdrawals in elderly people,[29 31] the authors recommend admission for acute detoxification. Initially, fluid and electrolyte imbalances should be corrected, along with thiamine administration to prevent Wernicke's and Korsakoff's syndromes. Benzodiazepine assisted alcohol withdrawal in elderly people should be undertaken with care because of increased sensitivity to adverse effects and altered pharmacokinetics, especially among older hospital inpatients with serious illness.[27] The use of medications to promote abstinence have not been studied extensively in elderly people. Disulfiram should be used cautiously and only in the short term because of the risk of precipitating a confusional state.[32] Naltrexone has been shown to help prevent relapse in subjects age 50-74.[33]

Psychological treatments include psychoeducation, counselling, and motivational interviewing. It has been implied that older people may derive more benefit from such treatments in same age settings.[34]

How can we improve our approach?

Improvements in our approach to alcohol use disorders in elderly people can be addressed at the levels of primary, secondary, and tertiary prevention strategies. Tertiary prevention strategies include the treatment strategies addressed earlier.

The knowledge that a sizeable proportion of elderly people (11-33%)[35 36] develop alcohol use disorders with late onset should be addressed at a primary prevention level. Alcohol use disorders may arise de novo in elderly people in the context of bereavement, changing role, or illness. The utility of existing screening instruments and diagnostic classification systems need not be addressed when used in older people. Modified screening instruments and diagnostic criteria for older people should focus on the more subtle yet damaging effects of alcohol use disorders on different aspects of health, with due account taken of increased comorbidity among older people, while de-emphasising some of the social, legal and occupational aspects that may be of more relevance to younger people.[2] This can be seen as analogous to the redefining of diagnostic criteria for depressive illness as it affects older people.[37]

Secondary prevention strategies should focus on those elderly people whose drinking pattern, while not fulfilling criteria for alcohol misuse or dependence, may be putting their physical or psychological health at risk. For example, an older person on anticoagulant treatment with a moderate intake of alcohol may be unknowingly putting their health at risk.

Healthcare workers in all settings should be vigilant for the role of alcohol in the presentation of

Additional educational resources

Websites for professionals

These websites provide useful information on current thinking and recent research in the area of alcohol use disorders in elderly people.

www.doh.ie—Department of Health and Children in Ireland. Aims to protect, promote, and restore the health and wellbeing of people by ensuring that health and personal social services are planned, managed, and delivered to achieve measurable health and social gain and provide the optimum return on resources invested

www.rcpsych.ac.uk—Royal College of Psychiatrists, the professional and educational body for psychiatrists in the United Kingdom and the Republic of Ireland

www.ipa-online.org—International Psychogeriatric Association, which aims is to improve the mental health of older people everywhere through education, research, professional development, advocacy, health promotion, and development of services.

www.psych.org—American Psychiatric Association, a medical specialty society recognised worldwide. The 37 000 US and international doctors who are members work together to ensure humane care and effective treatment for all people with mental disorder, including mental retardation and substance related disorders.

www.niaaa.nih.gov—National Institute on Alcohol Abuse and Alcoholism

Websites for patients

These websites provide information and links on alcohol use disorders in general, and alcohol use disorders in elderly people.

Royal College of Psychiatrists—www.rcpsych.ac.uk; mental health information section of the site

www.who.int—World Health Organization

www.alcoholics-anonymous.org—Alcoholics Anonymous

Key ongoing research studies

Mercer's Institute for Research on Ageing, St James's Hospital, Dublin 8, Ireland. Study title: The physical, psychological, social and cognitive health consequences and correlates of alcohol use in the community dwelling elderly. This study aims to describe in detail the health and social characteristics of a sample of community dwelling elderly people in Dublin, and how their health relates to different levels of alcohol intake

The Rotterdam Study, Erasmus Medical Centre, Rotterdam, Netherlands. This important longitudinal study has recently published important findings on the relation between use of alcohol and cognition

The Liverpool Longitudinal Study, University Department of Psychiatry and Institute of Human Ageing, Royal Liverpool Hospital, Liverpool. The study has resulted in important papers on the relation of alcohol use to depression and dementia

The NHLBI Framingham Heart Study, Framingham, Massachusetts, United States. The study investigators have published important findings on the relationship of alcohol intake to cardiovascular illness and stroke

older people with physical and psychiatric illness, cognitive impairment, and social problems. A history of current and lifetime alcohol consumption should be ascertained, with a collateral history from a relative or spouse if possible. The CAGE questionnaire has relatively good sensitivity and specificity in older people, is short and easy to use, but should be supplemented by further questions (for example, "Why do you think you should cut down?").[22] A physical examination and blood screen (liver function tests and mean corpuscular volume) complete the assessment.

Conclusions

The ageing of populations worldwide means that the absolute number of elderly people with alcohol use disorders is increasing.[5] Furthermore, little is known about the long term implications for people with a history of heavy alcohol consumption in their younger years and how this affects their chances of healthy ageing.[28]

Alcohol use disorders in elderly people may prove to be a silent epidemic, yet media attention and public health initiatives related to alcohol use disorders tend to focus almost exclusively on younger populations.[1 2] Increased attention is needed at the levels of primary, secondary, and tertiary prevention of alcohol use disorders, which should focus on the expanding number of older members of society.

Alcohol use disorders as they affect older people must be redefined if health services are to be sensitive to this demographic shift. This redefinition should take into account the increased vulnerability of older people to the many subtle adverse effects of alcohol and the numerous pitfalls involved in the underdetection and misdiagnosis of such problems.

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