

Substance misuse in the elderly

Substance misuse in older people has received very little attention from clinicians and policy makers. Due to the ageing population and changing trends in substance misuse, we can no longer consider this clinical issue as a rare phenomenon. Older people with such problems can present with severe physical and psychological morbidity. In this review, important issues regarding the epidemiology, diagnosis and management of substance misuse in older people are discussed.

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The issue of substance misuse in older people and the difficulties in identifying and managing older people with substance misuse are complex. We have used the term “misuse” as a general term to denote a number of other terms including abuse, harmful use, dependence and occasional use.¹ In addition, in this review, we have defined “older” as age 55 years and above.

The *British Crime Survey 2009/2010* reported decreasing levels of illicit drug misuse with increasing age.² Illicit drug misuse was highest among the 16–19 age group (22.3%) and lowest among the 55–59 age group (1.5%). People older than 59 years were not asked about substance misuse. However the population of the UK is ageing and will continue to grow older over the next few decades. In about 25 years’ time, there will be approximately 3.5 million people aged 85 years or over, accounting for 5% of the total population, and about one

fourth of the general population will be aged 65 or over.³ In the USA, using statistical modelling and projection methods, the number of older adults in need of drug misuse treatment is predicted to increase from 1.7 million about 10 years ago to 4.4 million in 2020.⁴ Also, the use of any illicit drug is expected to increase from 2.2% (1.6 million) to 3.1% (3.5 million), and non medical use of psychotropic drugs is expected to increase from 1.2% (911,000) to 2.4% (almost 2.7 million).⁵

Scope of the problem

In England, the number of NHS hospital admissions, in the 65–75 years age group, in which the primary or secondary diagnosis is a drug-related mental or behavioural disorder has doubled in the last 10 years.⁶

Holroyd and Duryea’s study of geriatric psychiatry outpatients⁷

showed that the overall prevalence of any substance misuse was 20%, and the US epidemiologic catchment area study⁸ showed a lifetime prevalence of substance misuse and dependence as 0.12% for older men and 0.06% for older women. Lifetime experience of illicit drug use was strongly related to age and gender.

The US Treatment Episode Data Set (TEDS) for 1966–2006 showed a substantial increase in substance misuse treatment related admission rates for people aged 55–64 years.⁹ The number of admissions also increased from 41,377 in 1966 to 67,218 in 2006. The “baby boom” population, who were born in the post World War 2 period, may place a significant demand on health services as this cohort is known to use more illicit drugs than previous generations.¹⁰ In the UK, data from the Treatment Demand Indicator (TDI) suggested that there is an ageing treatment population.¹¹

Box 1: Risk factors^{13–16}

- Genetic predisposition
- Male gender — illicit drugs
- Female gender — misuse of prescribed medications
- Cognitive impairment
- Panic disorder
- Suicidal ideations
- Age 50–65 years compared with 60 years plus
- Unmarried, separated, divorced or widowed
- Low education and income status
- Recent alcohol and tobacco use
- Involvement with criminal justice system
- Chronic pain and medical illnesses
- Long term use of psychotropic medications.

Risk factors

In general, a positive family history and previous substance misuse are known predisposing factors associated with substance misuse in older people. Other factors such as stress, social isolation, chronic pain and medical illnesses are also implicated. Drug interactions, pharmacokinetic and pharmacodynamic factors linked to old age are implicated in increasing the effects and misuse potential of substances that are commonly misused (Box 1).¹²

Assessment

Substance misuse can be difficult to assess and diagnose in older

people, and there are no validated and reliable screening tools to identify substance misuse problems in this group.¹⁷ Another issue is that there are no separate diagnostic criteria for diagnosing substance misuse in older people. Older people can be reluctant to disclose information about substance misuse, and their relatives, at times, can minimise the problem due to the stigma associated with it. Some of them might not recognise the problems as substance misuse. On the other hand, diagnosing clinicians may also be reluctant to ask about substance misuse in elderly people. A survey conducted among House Officers reported very poor recognition of substance misuse problems by medical staff in older inpatients.¹⁸ Only three out of 88 problem users of benzodiazepine were identified and only two of them were considered for further referral to substance misuse services. This has clearly raised awareness and training issues related to the problems of diagnosing substance misuse in older people.

Personal circumstances, such as living alone, social isolation and lack of collateral history from carers and relatives, may complicate the process of accurate diagnosis in this age group. In addition older people may not always present with classical symptoms of dependence syndrome (such as craving). Other common medical and psychiatric conditions such as depression, dementia and delirium may be over diagnosed at the expense of substance misuse. Furthermore withdrawal symptoms in older people can often be misdiagnosed as other

serious medical conditions, such as acute myocardial infarction or delirium.¹⁹

Several measures have been recommended to improve the diagnosis of substance misuse in older people.²⁰ A comprehensive history including past, present and family history of alcohol and substance misuse would improve the accuracy of diagnosis. This may further be supported by a thorough physical, medication and treatment history. Complete physical examination and collateral history should be included in the assessment. Routine urine drug screening is not generally indicated but is quick, cheap and non invasive, and it can be useful where the diagnosis is not clear. Routine questioning about substance misuse should be considered in certain high-risk older patients who have long-term painful medical illnesses, cognitive decline, psychiatric illnesses and unexplained abnormalities in laboratory investigations such as abnormal liver function tests. Regular medication review by GPs, geriatricians and psychiatrists and routine screening from community pharmacists might help with the identification of undiagnosed substance misuse in older people. It is important to think about the diagnosis, and then ask appropriate questions and undertake relevant investigations to confirm the diagnosis.

Misused substances

Benzodiazepines and hypnotics

Benzodiazepines are the most frequently prescribed sedatives

Box 2: Factors affecting diagnosis

- Stigma
- Social isolation
- Cognitive decline limiting the self reported history of substance misuse
- Lack of awareness in clinicians and patients
- Lack of collateral information
- Mistakenly diagnosed as other physical and psychiatric conditions
- Dearth of appropriate screening and diagnostic tools
- Clinician not asking about substance misuse.

in older people.²¹ A UK study, of 2,619 older people, reported the use of benzodiazepines and hypnotics in 33%.²² A similar US study on use of hypnotics reported a prevalence of 4.8% in community dwelling older people.²³ In another UK-based study, the prevalence of hypnotic use was 16% in people aged 65 years or over.²⁴ In addition the use of hypnotics was more prevalent among women than men and increased significantly with age. Furthermore, the rate of use increased from 13% among persons aged 65–74 years to 20% among those aged 75 years or over, and 25% of older people used the hypnotics for more than 10 years. In the US, alprazolam and lorazepam ranked first and third respectively among the top 25 psychiatric prescriptions in the year 2009.²⁵ A meta-analysis reported that the minor benefits of using sedatives in people over 60 years of age were outweighed by the significant risks, such as falls and cognitive impairment. The authors also noted that the studies included in this analysis did not directly address the risk of dependence and abuse potential of these medications.²⁶

Older people receive a significant proportion of the medical prescriptions issued and often receive multiple medications with abuse potential. They often have multiple comorbid medical conditions that result in complex medication regimes. Being a woman and having cognitive impairment, panic disorders, suicidal ideations, and a degree of embarrassment in obtaining help for emotional problems are reported as factors associated with benzodiazepine dependence in community dwelling elderly people.²⁷

Opioids

Opioids are another group of commonly misused drugs. Older people are at a high risk of opioid misuse as opiate pain relief forms an essential part of the pain management in a number of medical conditions, such as degenerative arthritis, and in palliative care. Data from a UK-based study²⁸ noted that approximately 2.8% of the elderly primary-care population had been on opioid analgesics continuously for at least one year and 40% of them fulfilled the DCR-10 criteria for dependence syndrome. US

data showed that there were more than 500,000 visits to emergency departments due to misuse of pharmaceutical substances; 65% of the visits were due to opioids and 21% of the patients were aged 55 or over.²⁹ Data from TEDS showed that 14.3 % of admissions related to substance misuse treatment were due to older people (55 years and above) who misused opioids.³⁰ An American study reported wide spread misuse of opioids (1.4%) among adults aged 50 plus years compared with the misuse of other medications (such as sedatives [0.14%], tranquillizers [0.46%], and stimulants [0.16%]). The same study noted that adults aged 50–64 years, men, alcohol users, marijuana users, and adults with a history of major depression were at high risk of misuse of opioids.¹⁴

Illicit drugs

In the UK, reliable data are not available on misuse of illicit substances such as cocaine, heroin, cannabis, hallucinogens and stimulants by older people. Illicit substance misuse is thought to be more prevalent in younger adults. However recent data suggest a change in this trend. Data from the National Drug Treatment and Monitoring Service (NDTMS) noted that in England in 2008/09, the proportion of new patients presenting with various illicit substance misuse who are aged 40 years and over has increased from 15% in 2005/06 to 20% in 2008/09.³¹ There was also a 20% increase in the proportion of new treatment presentations for heroin and crack cocaine by clients aged 35 and over between the years 2005 and 2009. Furthermore in 2008/09, 24% of patients in contact with structured treatment were aged

Box 3: General management principles

- Full medical and psychiatric assessment
- Full physical examination
- Appropriate investigations and urine drugs screening
- Treating the comorbid physical and psychological issues
- Providing the least intensive treatment in a multidisciplinary team setting
- Aiming to stabilise and reduce consumption (harm minimisation)
- To establish abstinence by using community based detoxification regimes
- Arranging appropriate psychosocial interventions (counselling and/or motivational interviewing) to sustain abstinence
- Allocating a key worker to facilitate the community based follow up and to provide cognitive therapy to enhance relapse prevention
- Referring to older adult oriented community based supportive psychotherapy, counselling and group therapy
- Inpatient detoxification regime is usually reserved for severe and complex patients

40 or over compared with 22% in 2007/08 and 20% in 2006/07. The data also showed that the average age of patients misusing cocaine who presented to treatment has increased to 33 years in 2008/09 from 31 years in 2006/07. The US TEDS noted that cocaine is the primary substance misused in 10–13% of all admissions in the 50–59 age group.⁹

Over-the-counter substances

A report by the UK All Party Parliamentary Drugs Misuse Group (APPDMG) discussed the lack of reliable figures on the scale of addiction to over-the-counter medication.³² However, the problem was reported as significant enough to require action. Codeine contained in the over-the-counter painkiller was reported as most commonly misused medication. This was

confirmed by the survey conducted by an independent website “Over-Count” (<http://over-count.weebly.com/>). Opioids, antihistamines and laxatives were reported as being the most commonly misused substances in the survey.³³ Currently there are no age specific data available to understand the magnitude of the over-the-counter drug misuse in older people.

Management

TDI data have shown that the proportion of all patients entering treatment for substance misuse in the 40 years or over age group has steadily increase between 2003/04 and 2007/08 (from 12 to 17%).¹¹ Also during this period, the 40–49 years age group have shown a doubling in the numbers of people with substance misuse problems.¹¹

Health services in the UK are currently gearing up to provide needs based services in a measure to avoid age discrimination. Many older people who misuse substances may not seek help from these services. This may be because of the stigma and shame attached with this problem. Lack of awareness, along with the absence of age and need specific services for the older people, can also be other reasons preventing their engagement with services. The management and pace of recovery in older people may vary compared with younger patients. It is therefore important to tailor appropriate individualised management plans incorporating specific psychosocial and health needs relevant to older people. The Department of Health makes specific mention about older drug users, and notes that there should be an understanding about the specific health needs of this group.³⁴

In general, treatment for substance misuse has not developed as much as the treatment for alcohol dependence in older adults. Treatment of substance misuse includes both pharmacological and psychosocial management. Assessment and management of chronic painful medical conditions and insomnia is crucial. Involving the pain specialist and providing cognitive approaches to pain management can also be helpful. Cognitive behavioural therapy has become a common non-pharmacologic treatment option for individuals experiencing chronic pain associated with non-malignant conditions. The diagnosis and treatment of underlying psychiatric illnesses, such as depression and anxiety, is very important before dealing with the treatment of

any type of substance misuse. The management of associated alcohol misuse is also important before addressing other specific substances that are misused.

Prognosis

The available evidence suggests that the treatment outcomes in older people are better than younger adults.³⁵ In a follow up study, older people stayed longer in the treatment and had better abstinence rates when compared with younger adults.³⁶ In particular, older women had better outcomes than older men and younger women, and this was sustained after seven years.³⁷ In a more recent comparison between completers and noncompleters of cognitive behavioural and self-management treatment approaches given to older people with substance misuse, the completers reported decreased misuse of prescription drugs, improved cognitive functioning, improved mental health, increased vitality, and lack of bodily pain. Participants also reported significant improvements in their social functioning.³⁸

Lack of research

Research in substance misuse in older people is difficult and is lagging behind clinical concerns and remains as a neglected topic. The majority of the research evidence comes from the US. The scale of the problem in developing countries is currently not clear. Prevalence of substance misuse in older people is generally reported as low. Traditionally, studies and

reviews have included alcohol misuse along with illicit substance misuse for the purpose of research. Variations in the designated age of older drug users make direct comparisons between the studies difficult.³⁹ In 2010, the UK focal point report referred people aged 40 years or over as older adults.⁴⁰ In general the “older age” cut off varies from 40 years to 65 years in different studies. It is difficult to collect research evidence about the comparative efficacy of various approaches to treatment for substance misuse among older adults due to low sample size and poor participation of older adults in such studies. Older adults are typically excluded from the intervention trials in this area.⁴¹ There is an urgent need to do more research in this important area as future treatment and service delivery for older people with substance misuse will need more of an evidence base.

Conclusion

Substance misuse and the associated physical and psychological comorbidity in older people is not a rare phenomenon, but is unfortunately underestimated. Lack of robust data means there may even be a hidden epidemic. An ageing population along with the changing trend in substance misuse and treatment seeking patterns in older people might place a huge demand on resources. Treatment is effective and the prognosis may even be better in older people compared with younger patients. Better awareness among clinicians, service users, carers and service providers is urgently needed to

design and provide age appropriate treatment for this important clinical problem. Available information shows that older adult specific services for substance misuse and related problems are not widely available in the UK and we are currently under prepared to deal with the predicted increase in the magnitude of this problem in the next few decades. There is an urgent need to think strategically and plan effectively to design new services or modify current services. Training for staff is also crucial. In particular, GPs, geriatricians and old age psychiatrists will need additional training and resources to effectively work together and provide good care to older people with substance misuse and related health problems. Developing and implementing new screening tools and modifying the current diagnostic guidelines to suit the needs of older people would also be helpful. Inclusion and participation of older adults in research is important. Research is needed to evaluate the long-term outcome and to test the effectiveness of older adult specific interventions.

Conflict of interest: none

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