

Suicidal attempts by prescription drug overdose in the elderly: a study of 44 cases

Gerasimos Gavrielatos¹
 Nikolaos Komitopoulos¹
 Petros Kanellos²
 Efstratios Varsamis¹
 John Kogeorgos²

¹2nd Department of Internal Medicine and ²Department of Psychiatry, Aghia Olga's Hospital, Nea Ionia, Athens, Greece

Abstract: A series of 44 consecutive elderly, admitted to a busy general hospital following deliberate self-poisoning, is reviewed for associated medical and psychosocial factors. In all but 3 cases the act involved an overdose of drugs prescribed for the treatment of a chronic medical and/or psychiatric disorder. Women outnumbered men by 2.7 to 1. There was a high proportion of chronic psychiatric (80%, mostly depressive) and medical (60%) conditions. Chronic stress from the physical illness, social isolation, or tacit family conflict were common and seemed instrumental in the self-poisoning act. Most attempts were carried out around the weekend and during winter. One man succumbed to complications of the overdose but the rest of the patients recovered. Psychosocial (especially depressive) and medical vulnerability, plus availability of prescribed drugs, were the most important determinants of suicidal behavior among these elderly attempters.

Keywords: drug overdose, elderly, suicidal attempts, self-poisoning

Introduction

Attempted suicide remains a serious clinical and public health issue, which appears to be rising in parallel with or exceeding suicide rates (Diekstra 1996; McLoone and Crombie 1996; McEvedy 1997). Further, attempted suicide and attendant risk of death are of special importance in the elderly due to a combination of particular factors in old age, including failing physical and mental health and reduced income and social supports. Deliberate drug overdose is the preferred means and commonest method of suicide in the elderly (Cattel and Jolley 1995; Tadros and Salib 2000; Harwood et al 2000), conceivably facilitated by their greater physical vulnerability, further compromised by frequent medical comorbidities and polypharmacy. Despite such high risks and related severity of suicidal behavior in the elderly, relatively few studies have focused on this problem (Hawton and Fagg 1990; De Leo 1997).

The aim of the present investigation was to explore the relevant factors associated with deliberate self-poisoning of 44 elderly subjects, admitted to a busy general hospital, following their gesture, over a period of 3.5 years.

Patients and methods

All elderly subjects (aged 65 or over) admitted to the 2nd Internal Medicine Department of Aghia Olga's Hospital following a suicidal attempt by drug overdose over the period were reviewed through their systematically recorded case notes. Their demographic, clinical, and psychosocial characteristics, medical and drug history, the particular circumstances surrounding their action, and their mental and medical status as routinely and meticulously recorded on admission, including their state of consciousness, were all noted on specially designed clinical forms. Particular care was taken to establish the presence or not of a psychiatric and/or personality disorder and to ensure that the drug overdose was not accidental but an intended suicidal act. Information from medical and psychiatric examinations was complemented with

Correspondence: John Kogeorgos
 Department of Psychiatry,
 Aghia Olga's Hospital, 3–5 Aghia Olga's
 Street, Nea Ionia, Athens 14233, Greece
 Tel/Fax +30 210 2793211
 Email agiaolga@otenet.gr

interviews with relatives or other key persons, and relevant social work reports. Relevant psychosocial conflicts or other stresses preceding the overdose were also recorded, including apparent psychodynamics related or leading to the final act of the attempt. These assessments and coordinated actions were carried out alternately by two experienced psychiatric registrars based at the psychiatric department of the hospital and in charge of the consultation–liaison service provision to Aghia Olga’s casualty and medical wards. These psychiatrists also decided on each patient’s required management and whether a patient should be treated on the medical ward or transferred to psychiatric in-patient care, for more specialized observation and treatment. Psychiatric assessments and initial management of these elderly attempters were carried out in the medical setting, over a period of a few days, in parallel with these patients’ medical investigative and treatment procedures and complemented by further out-patient follow-up supervision and support.

Results

A total of 44 elderly patients were studied, representing 6.3% of all patients admitted to the clinic over the same period following a deliberate drug overdose. Of these, 13 were males and 31 females (age range 65–91 years; mean 73 years; median 71 years). About half the patients (48%) were married, the remainder being widowed (30%), divorced (8%), or never married (14%). Of the second two categories,

fewer than half were living alone at the time of their admission.

About 60% (27) of the patients had been suffering from one or more chronic medical illnesses (mostly pulmonary or cardiovascular conditions, notably hypertension, diabetes mellitus, arthritis) and receiving related medications. About 80% (35) of the patients had a history of a chronic depressive disorder but less than one third (14) of the patients had a history of psychiatric consultation for depression – in 2 cases following a previous attempt – and only 4 patients were receiving antidepressant treatment at the time of their attempt. Several patients were already known to some social agencies. In 31 (70%) of the patients the final act of self-poisoning could be linked to a specific domestic stress. This most often was related to health or financial issues, or due to tacit conflict with other family members, leading to disproportionate guilt feelings or a fully fledged depressive reaction. In the remainder, the attempt could be related to a sense of impasse caused by the stress of chronic medical illness and medication. It is telling that in several of these patients the drug overdose took place during a lengthy period of low grade stress from chronic symptoms or exacerbations of these, commonly pain or impaired mobility.

The drugs taken in the overdose were in all cases drugs prescribed for the treatment of the patients’ medical conditions, plus benzodiazepines and analgesics (Figure 1). Thirteen patients had taken more than 2 different drugs. However, 3 of the patients had also ingested a modest quantity of a detergent.

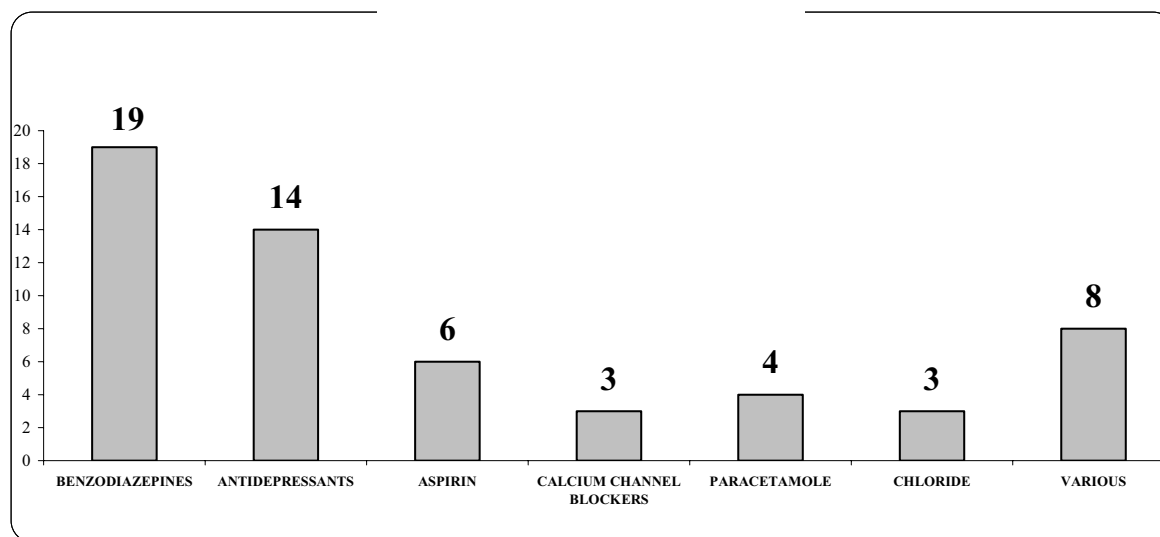


Figure 1 Drugs ingested.

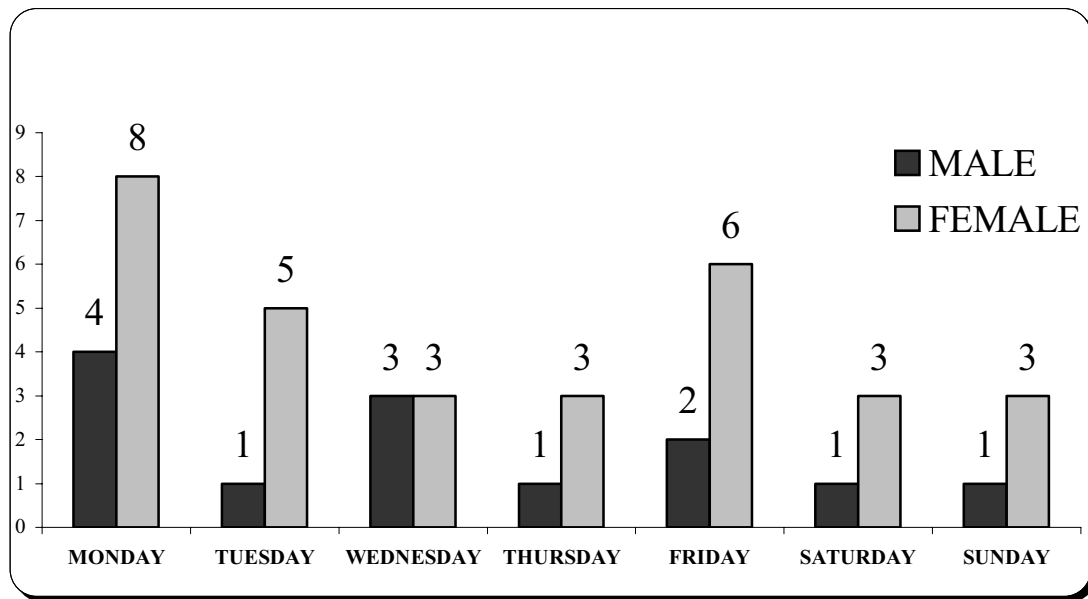


Figure 2 Incidence of attempts by day of the week.

The time pattern of female admissions showed highest incidence in winter (January to March) and on specific days (Friday and Monday) (see Figures 2 and 3).

The psychiatric diagnosis in all patients on admission was one of moderate or severe depression, in many cases with prominent features of anxiety; 3 cases had associated primary cognitive impairment. Of these, 21 patients met diagnostic criteria for major depression, 4 patients were diagnosed with dysthymia, and 19 patients had a subsyndromal or atypical depression.

In addition to the subjects studied, there was one death during the period of the study.

Discussion

Deliberate drug overdose is the commonest type of suicidal behaviour in the elderly (Cattell and Jolley 1995; Tadros and Salib 2000; Harwood et al 2000) and is especially important as it accounts for 20% of all suicide deaths (Buckley et al 1995) and there is an ever increasing availability of such compounds. Increased mental and

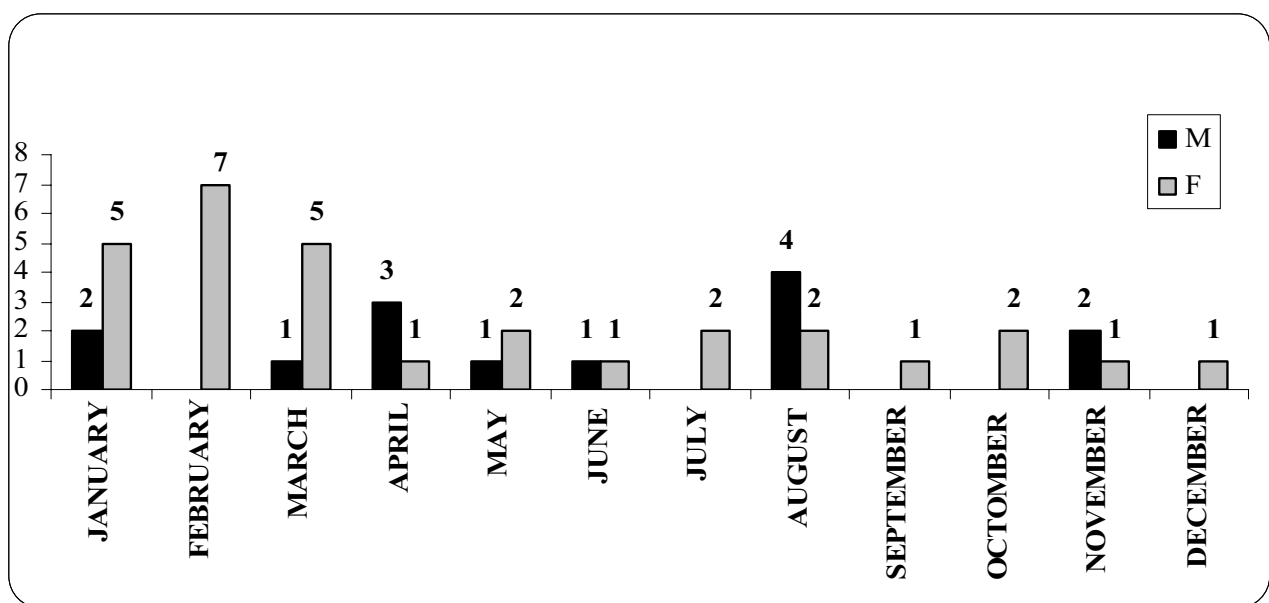


Figure 3 Incidence of attempts by month of the year.

physical frailty and consequent need of and access to multiple prescription medications make elderly attempters the most vulnerable yet least studied age group. The scarcity of relevant studies has been commented on by several workers in the field. For example, Hawton and Fagg (1990) noted that "very little attention has been paid to non-fatal suicidal behaviour in the elderly". Likewise, De Leo (1997) considers suicidal behaviour in the old "a neglected subject receiving little interest and research attention". Increased vulnerability and access to multiple prescription medications are two of the main areas focused on in the present analysis. Our study, while a retrospective one, is based on naturalistic data, recorded in a predetermined and systematic fashion and as part of a standard clinical practice.

Our findings support important convictions on the relevance to suicidal behavior of inherent vulnerabilities of old age such as, and notably, loneliness and isolation or circumstances of interpersonal conflict or dependence, psychiatric history especially of depression and medical morbidities, and polypharmacy, with varying degrees of real or perceived incapacity. Such features, in varying combinations, were not merely present in the vast majority of our attempters, but were demonstrably instrumental in both breeding vulnerability to and precipitating the overdose. These factors seemed to have acted cumulatively but also in an apparent dynamic synergy. Thus, a rather dependent and liable-to-depression 69-year-old widow, with chronic emphysematous bronchitis, who coped reasonably well at home, unexpectedly took a large overdose of her medication on learning that her only son, who had lived with her since childhood, was engaged to be married and could move to alternative accommodation. In another case, an 82-year-old independent widower, a diabetic and hypertensive, was persuaded to move in with his son and daughter-in-law and under their care, where he lived uneventfully thereafter, until he suffered a modest stroke. This event and disproportionate fear of dependence led him to take a considerable overdose of his prescribed regimen.

The percentage (6.3%) of our elderly attempters out of those of all ages admitted over the same period following self-poisoning is comparable with rates reported in studies in other countries (eg, Hawton and Fagg 1990, Ticehurst et al 2002). Such similarity would suggest a major common denominator irrespective of residence or culture and may be effectively determined by the frequently associated major affective disorder. Likewise, the clear peak of women's attempts during winter weekends is in-keeping with similar

reported trend in upsurges of depression and also of completed suicide (Wicki et al 1992). In contrast, several other demographic and clinical features of our patients are distinctly at variance with those of other studies. These include a clear preponderance of women in our group, 75% of whom were married or living with relatives, triggering factors related to domestic conflict rather than to social isolation and loneliness. These differences are attributable to the distinctive social and cultural characteristics of Greek people (Ierodiakonou et al 1998), in particular the surviving extended family, coupled with rapid emancipation of the younger generation. Notably, such characteristics have also been observed in Greek immigrants in Australia (Burnvill et al 1983).

A remarkable finding was that while all our patients were found to be depressed and 80% (35) of them had a clear history of chronic depression, less than one third (14) of all patients had been previously so diagnosed and of these, only 4 patients were receiving treatment at the time of their attempt. These findings would support long-standing concerns about the scale of unrecognized depression in old people, including those living with relatives. It has been noted that the elderly are loath to admit to their depression, and that apparent, ageist beliefs make others dismiss it as expected feature of old age; further, diagnosed depression in the old is often left untreated (Macdonald 1986; Paykel and Priest 1992; Katona et al 1995). Thus, our findings re-emphasize the importance of vigilance when dealing with elderly subjects.

The considerable proportion of medical conditions among our patients is of interest as the adjunctive role of physical illness in suicidal behaviour has been well recognized among both suicide attempters and completers (Pierce 1987; Szanto et al 2002).

A most important finding was that in all but three of the patients, self-poisoning was caused by overdose of medicines prescribed for existing medical and/or psychiatric conditions. This fact suggests that availability of prescription drugs – especially common among the elderly – in the presence of other relevant predisposing or risk factors, also predominant in this age group, could tip the balance towards loss of control and the final suicidal act. The relevance of available prescription drugs to deliberate self-poisoning, has been pointed out before (Crombie and McLoone 1998) and was confirmed by detailed accounts of many of our patients.

In conclusion, the high susceptibility of the elderly to suicidal behavior by self-poisoning, notably by a drug

overdose, calls for increased awareness especially by primary care physicians of the diverse risk factors associated with old age and also for proper preventive actions. By far the most important of these, are early detection and treatment of underlying depression and caution when handing medical prescriptions to old people.

Acknowledgments

We thank Ms Vaggelitsa E Kesoglou for her skilful secretarial assistance

References

- Buckley NA, Whyte IM, Dawson AH, et al. 1995. Correlations between prescriptions and drugs taken in self-poisoning. Implications for prescribers and drug regulation. *Med J Aust*, 162:194–7.
- Burnvill PW, Armstrong BK, Carlson DJ. 1983. Attempted suicide and immigration in Perth, Western Australia 1969–1978. *Acta Psychiatr Scand*, 68:89–99.
- Cattell H, Jolley DJ. 1995. One hundred cases of suicide in elderly people. *Br J Psychiatry*, 166:451–7.
- Crombie IK, McLoone P. 1998. Does the availability of prescribed drugs affect rates of self-poisoning? *Br J Gen Pract*, 48:1505–6.
- DeLeo D. 1997. Suicide in late life at the end of the 1990s: a less neglected topic? *Crisis*, 18:51–2.
- Diekstra RFW. 1996. The epidemiology of suicide and parasuicide. *Arch Suicide Res*, 2:1–29.
- Harwood DM, Hawton K, Hope T, et al. 2000. Suicide in older people: mode of death, demographic factors, and medical contact before death. *Int J Geriatr Psychiatry*, 15:736–43.
- Hawton K, Fagg J. 1990. Deliberate self-poisoning and self-injury in older people. *Int J Geriatr Psychiatry*, 5:367–73.
- Ierodiconou CS, Iacovides A, Ierodiconou-Benou I. 1998. Changing patterns of attempted suicide in Greece: clinicoepidemiological and psychodynamic data. *Psychopathology*, 31:281–92.
- Katona CLE, Freeling P, Hinchliffe K, et al. 1995. Recognition and management of depression in late life in general practice: consensus statement. *Prim Care Psychiatry*, 1:107–13.
- Macdonald AJD. 1986. Do general practitioners “miss” depression in elderly patients? *Br Med J*, 292(6532):1365–7.
- McEvedy CL. 1997. Trends in self-poisoning: admissions to a central London hospital, 1991–1994. *J R Soc Med*, 90:496–8.
- McLoone P, Crombie IK. 1996. Hospitalisation for deliberate self-poisoning in Scotland from 1981 to 1993: trends in rates and types of drugs used. *Br J Psychiatry*, 169:81–5.
- Paykel ES, Priest RG. 1992. Recognition and management of depression in general practice: consensus statement. *BMJ*, 305(6863): 1198–202.
- Pierce D. 1987. Deliberate self-harm in the elderly. *Int J Geriatr Psychiatry*, 2: 105–10.
- Szanto K, Gildengers A, Mulsant BH, et al. 2002. Identification of suicidal ideation and prevention of suicidal behaviour in the elderly. *Drugs Aging*, 19:11–24.
- Tadros G, Salib E. 2000. Age and methods of fatal self harm (FSH). Is there a link? *Int J Geriatr Psychiatry*, 15:848–52.
- Ticehurst S, Carter GL, Clover KA, et al. 2002. Elderly patients with deliberate self-poisoning treated in an Australian general hospital. *Int Psychogeriatr*, 14:97–105.
- Wicki W, Angst J, Merikangas KR. 1992. The Zurich Study. XIV. Epidemiology of seasonal depression. *Eur Arch Psychiatry Clin Neurosci*, 241:301–6.

