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Editor: Greg Wilkinson

Dementia in 2001

SIR: In his review of the various studies of the prevalence of dementia in the elderly (*Journal*, February 1987, **150**, 193–200) Ineichen mentioned the effect of sample size on the results, but did not sufficiently emphasise its importance. The prevalence of a disorder in a sample is only an estimate of the prevalence in the target population, and the reliability of that estimate depends on the size of the sample. The most extreme findings (large and small) tend to be found in those surveys with the smallest samples, as is shown by the studies of severe dementia in those aged 65 and over quoted by Ineichen, where the sample size is inversely correlated with the deviation of the sample prevalences from the mean ($r = -0.78$; $P < 0.01$). The effect of sample size can be quantified by calculating the standard error or confidence interval of the finding, and where the sample is small these will be large in proportion to the estimated prevalence (Clarke *et al*, 1986).

This is particularly true for the very old, where influential prevalence figures for dementia have been derived from small sub-groups of the elderly within samples of those aged 65 and over. In view of the predicted expansion of this particular age group and the implications of this for medical and social services, it is surprising that our working estimates of the prevalence of dementia are still so vague. Ineichen's rule of thumb (1% of 65–74s and 10% of over 75s) may be correct, but in the present state of epidemiological knowledge it remains something of a guess.

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Khat Psychosis

SIR: I echo the call by Critchlow & Seifert (*Journal*, February 1987, **150**, 247–249) for greater awareness of khat consumption in the UK and its psychotropic effects.

Case Report: A 22-year-old Ethiopian male was brought to Accident and Emergency by his brother, with a one-year history of progressively odd behaviour. He had left college and had stopped claiming DHSS benefit. He had drawn strange patterns on the walls of his flat. On direct questioning he denied illicit drug use. On admission he was unkempt, restless, emotionally labile, and experiencing third person auditory hallucinations. He was normotensive with a heart rate of 85 per minute and small pupils. Urine drug screen was negative. He was treated with chlorpromazine (200 mg t.d.s.), and his positive symptoms disappeared after 72 hours. He remained lethargic and withdrawn. Four days later he again became restless, hallucinated, and was unable to sleep. He settled after 48 hours of continued medication. He later stated that prior to his exacerbation he had chewed khat leaves. He had been a habitual chewer from 10 years of age, and prior to admission he had chewed twice weekly.

The level of sympathetic arousal may be helpful in distinguishing the rare cases of khat intoxication producing manic-like psychosis (as described by Giannini & Costellani (1982)), from khat-induced exacerbation of psychosis. Halbach (1972) comments on the rarity of khat-induced psychosis in areas where chewing is endemic and suggests that most reports of associations are of exacerbation of psychosis in predisposed individuals. This may be explained by the bulky nature of the preparation only permitting low plasma levels of the amphetamine-like agent to be attained by chewing.

Khat leaves are chewed fresh for the best effect. The patient informed us that leaves were flown in twice weekly from Ethiopia and sold at a retail outlet in East London. A packet wrapped in banana leaves costs £5 and provides enough for an evening. There are no legal restrictions on the sale or use of this substance in the UK. The regular importation suggests there must be considerable demand for this substance in London. As yet there is no evidence that use of this substance has spread beyond the East African immigrant population. Khat use should be enquired after in patients from this region presenting with psychotic illness.

I would like to thank Dr H. F. Oakeley for his advice and permission to discuss his patient.

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