

Correspondence

Edited by Kiriakos Xenitidis and Colin Campbell

Contents

- Dementia in the acute hospital
- Acute stress disorder in victims after terror attacks in Mumbai, India
- Interpretation of screening implementation studies

Dementia in the acute hospital

Sampson *et al*¹ addressed the importance of additional resources attached to the medical care of the growing population of elderly people with dementia or cognitive impairment. Although restricted to the elderly undergoing medical acute admissions, the study highlights the underdiagnosis of dementia, its poor short-term outcome and high mortality rates during admission.

If we translate these findings to a clinical setting, the problem of undiagnosed dementia in medical milieu appears to be much wider. In Newcastle alone, out of nearly 17 000 annual non-elective admissions of over-65-year-olds, only 4.3% are referred to the liaison team for older people's mental health, suggesting that a large proportion of elderly (up to 38%, using Sampson *et al*¹ data) that are not referred to specialist mental health liaison teams, may well have undiagnosed and untreated mental health problems, including dementia and dementia-related health problems.

Hospital-based liaison teams for older people are seeing a number of elderly people with memory problems in various medical settings, and patients with dementia in an acute medical setting may represent only a small portion of all elderly admitted on other medical and surgical wards. Thus, our liaison team (providing hospital mental healthcare for a region including an estimated 41 000 elderly, n = 730-1200 referrals/annum) on average gets 26% of referrals from acute medical wards, with a similar proportion (25%) from care of the elderly wards, and/or rehabilitation wards (16%); an additional 33% comes from various surgical and other specialised medical wards (e.g. dermatology, infectious disease). Of these, 40% are already known to old age psychiatry services. The majority of performed assessments are related to dementia (59%), level of care (25%) and behavioural problems as a result of known memory problems (15%). Importantly, 19% of medically ill patients are obtaining their first diagnosis of dementia via our service, a finding similar to that described by Sampson et al.1 An additional 17% of assessments identify various social issues closely related to the presence of cognitive impairment.

The high rate of elderly people with dementia on medical wards should not come as a surprise, since on average people with dementia (irrespective of the type of dementia) have three or more physical illnesses.² Furthermore, severity of dementia independently predicts hospitalisation.³ However, the impact of comorbidity on survival appears to be dependent not on severity of dementia,⁴ but on the number of medical diseases, which in turn contribute to more rapid dementia decline.⁵

The high mortality rates described for people with dementia¹ also confirm previous findings of the presence of concomitant psychiatric and somatic disorders resulting in poor outcome.⁶

Furthermore, although the burden of chronic medical conditions was similar in patients with and without dementia, the severity of acute illness (assessed with APACHE II) was higher in individuals with dementia/cognitive impairment.¹ This finding is consistent with the reported underdiagnosis of medical problems in patients with dementia which can preclude their early detection and treatment.⁷ Interestingly, Sampson *et al* included inviduals with delirium episodes in the analysis if these had resolved within 4 days. This may explain the reported high death rates, which are very similar to those reported for delirium in the elderly.⁸ In support of the presence of underlying delirium goes the reported finding of higher burden of acute physiological disturbances in individuals with dementia/cognitive impairment.¹

Attention was drawn in a previous study to difficulties assessing delirium with the Mini-Mental State Examination (MMSE) in acutely medically ill elderly. In these patients, the most frequent symptoms reported by the Confusion Assessment Method (CAM) are those of memory impairment (55%) and disorientation (37%), whereas the characteristic delirium symptom of altered level of consciousness is reported in only 21%. Similarly, 24% of elderly with an acute medical illness cannot be assessed by the MMSE. Thus, although definition of delirium based on the CAM (DSM–III) or DSM–IV criteria may be adequately suited for delirium assessment in medically ill elderly with cognitive impairment, there still seems to be a lack of standardised instruments specifically developed to be used in this population.

Interestingly, 30% of the participants came from sheltered, residential and/or nursing homes, and this group in particular had a higher mortality rate. This raises an additional issue about the healthcare that is provided within these venues and the accessibility to adequate services that in the light of the findings may well need to be provided *in situ*.

Lastly, we agree with the conclusion that additional mental health liaison services will need to be further developed. Moreover, to cope with the rising numbers of people with dementia, the educational role of such teams is likely to become increasingly important. Although tailored to the learning needs of each group, the focus should be on increasing awareness and understanding of dementia. ¹⁰ The key challenge, which will determine the success of any educational endeavour and ultimately whether outcomes for the older person with dementia are improved, is to ensure that knowledge is successfully transferred into improved practice behaviour. ¹¹

- 1 Sampson EL, Blanchard MR, Jones L, Tookman A, King M. Dementia in the acute hospital: prospective cohort study of prevalence and mortality. Br J Psychiatry 2009; 195: 61–6.
- 2 Schubert CC, Boustani M, Callahan CM, Perkins AJ, Carney CP, Fox C, et al. Comorbidity profile of dementia patients in primary care: are they sicker? J Am Geriatr Soc 2006: 54: 104–9.
- 3 Albert SM, Costa R, Merchant C, Small S, Jenders RA, Stern Y. Hospitalization and Alzheimer's disease: results from a community-based study. J Gerontol A Biol Sci Med Sci 1999; 54: 267–71.
- 4 Doraiswamy PM, Leon J, Cummings JL, Marin D, Neumann PJ. Prevalence and impact of medical comorbidity in Alzheimer' disease. J Gerontol A Biol Med Sci 2002; 57: M175–7.
- 5 Boksay I, Boksay E, Reisberg B, Torossian C, Krishnamurthy M. Alzheimer's disease and medical disease conditions: a prospective cohort study. J Am Geriatr Soc 2005; 53: 2235–6.
- 6 Van Dijk PTM, Dippel DW, Van der Meulen JH, Habbema JD. Comorbidity and its effect on mortality in nursing home patients with dementia. J Nerv Ment Dis 1996; 184: 180–7.
- 7 Zekry D, Herrmann FR, Grandjean R, Meynet MP, Michel JP, Gold G, et al. Demented versus non-demented very old inpatients: the same comorbidities, but poorer functional and nutritional status. Age Ageing 2008; 37: 83–9.
- 8 Mukaetova-Ladinska EB, McKeith IG. Delirium and dementia. *Medicine* 2004; 32: 44–7.

- 9 Yates C, Stanley N, Cerejeira JM, Jay R, Mukaetova-Ladinska EB. Screening instruments for delirium in older people with an acute medical illness. Age Ageing 2009; 38: 235–7.
- 10 Department of Health. Living Well with Dementia. A National Dementia Strategy. TSO (The Stationery Office) 2009.
- 11 Teodorczuk A, Welfare M, Corbett S, Mukaetova-Ladinska E. Education, hospital staff and the confused older patient. Age Ageing 2009; 38: 252–3.

Elizabeta B. Mukaetova-Ladinska, Institute for Ageing and Health, Campus for Ageing and Vitality, Newcastle University, Newcastle upon Tyne NL5 5PL, UK. Email: Elizabeta.Mukaetova-Ladinska@ncl.ac.uk; Andrew Teodorczuk, Institute for Ageing and Health, Campus for Ageing and Vitality, Newcastle University, UK; Joaquim M. Cerejeira, Coimbra University, Coimbra, Portugal

doi: 10.1192/bjp.195.5.461

Acute stress disorder in victims after terror attacks in Mumbai. India

In November 2008, 164 people were killed and at least 308 were physically injured in terror attacks on Mumbai, India. One of the common psychiatric disorders in victims of terror is acute stress disorder. Out of 74 victims admitted to a public hospital, 70 were assessed by a senior psychiatrist (V.P.B.) for the presence of acute stress disorder in the week following hospitalisation. Four patients who were too severely injured were excluded. Victims were directly brought to the hospital because of its proximity to the terror sites or were transferred from other hospitals owing to space, facility and staff (medical/non-medical) constraints.

After obtaining informed consent, patients were individually interviewed and their demographic data (gender, age, address, socioeconomic status (as per B.G. Prasad classification),² religion, education, marital status and occupation), and details of the injuries sustained (initial gravity score)³ were recorded. Patients were specifically evaluated for the presence of acute stress disorder using DSM–IV–TR criteria.⁴ Details of past psychiatric history and family history of psychiatric disorders were also collected. The collected data were then tabulated and analysed using the chi-squared test.

The mean (s.d.) age of the victims was 33.5 (12.95) years. There were 52 males and 18 females. Acute stress disorder was found in 21 (30%) of the 70 victims assessed. Other similar studies on victims of terror attacks have found a prevalence of acute stress disorder varying from 12.5 to 47%. According to Bryant, human-caused trauma has higher rates of acute stress disorder. According to Stern and Janoff-Bulman, this is because the usually indiscriminate and random nature of terrorist attacks create extreme anxiety and helplessness, and destroy individuals beliefs in their own invulnerability and in the justness of the world.

There were some interesting observations and differences between the patients with and without acute stress disorder on various demographic and clinical variables, although none of the differences reached the level of statistical significance. Acute stress disorder was more common in: females (female, 44.4% v. male, 25.0%); younger victims (<33.5 years, 34.9% ν . >33.5 years, 22.2%); victims who were following the Muslim religion (Muslim, 33.3% v. Hindus, 29.6%); residents of Mumbai (residents, 36.6% v. immigrants, 20.7%); divorcees and single victims (divorcees and single, 50.0% and 46.7% v. married and widows, 25.5% and 0%); unemployed (unemployed, 37.5% v. employed, 28.0%); those of low socioeconomic status (low socioeconomic status, 31.7% v. middle socioeconomic status, 20.0%); patients with more than 6.5 years of education (>6.5 years, 39.1% ν . \leq 6.5 years, 25.5%); and those with severe injury (severe injury, 31.0% v. moderate injury, 25.0%). None of the victims had any past history or family history of any psychiatric disorders.

- 1 Government of India. HM announces measures to enhance security. Press Information Bureau, 11 December 2008 (http://pib.nic.in/release/ release.asp?relid=45446).
- 2 Agarwal AK. Social classification: the need to update in the present scenario. Indian J Community Med 2008; 33: 50–1.
- 3 Verger P, Dab W, Lamping DL, Loze JY, Deschaseaux-Voinet C, Abenhaim L, et al. The psychological impact of terrorism: an epidemiologic study of posttraumatic stress disorder and associated factors in victims of the 1995–1996 bombings in France. Am J Psychiatry 2004; 161: 1384–9.
- 4 American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (4th edn, text revision) (DSM-IV-TR). APA, 2000.
- 5 Bryant RA. Acute stress disorder. PTSD Research Quarterly 2000; 11, 1-7.
- 6 Silver RC, Holman EA, McIntosh DN, Poulin M, Gil-Rivas V. Nationwide longitudinal study of psychological responses to September 11. *JAMA* 2002; 288: 1235–44.
- 7 Muñoz M, Crespo M, Pérez-Santos E, Vázquez JJ. Presencia de síntomas de estrés agudo en la población general de Madrid en la segunda semana tras el atentado terrorista del 11 de Marzo de 2004 [Presence of acute stress symptoms in the general population of Madrid in the second week after the terrorist attack of March 11, 2004]. Ansiedad y Estrés 2004; 10: 147-61.
- 8 Stern J. The Ultimate Terrorists. Harvard University Press, 1999.
- 9 Janoff-Bulman R. The aftermath of victimization: rebuilding shattered assumptions. In *Trauma and Its Wake: Vol. 1. The Study and Treatment of Posttraumatic Stress Disorder* (ed C Figley): 15–35 Brunner/Mazel, 1985.

Vanshree Patil Balasinorwala, Department of Psychiatry, Grant Medical College, c/o S.A. Balasinorwala, 57, Sarang Street, Fourth Floor, Room 36, Burhani Building, Mumbai 400003, India. Email: nishant.b@hotmail.com; Nilesh Shah, Department of Psychiatry, L. T. M. Medical College and General Hospital, Sion, Mumbai, India

doi: 10.1192/bjp.195.5.462

Interpretation of screening implementation studies

Baas *et al*¹ report some very valuable findings based on a screening implementation study in Dutch general practice. In particular, they document that converting detections into treatment success is difficult in clinical practice and that many individuals with depression are unable or unwilling to accept help. However, I must disagree with their interpretation that it is necessary to screen 118 (17 of 2005) 'high-risk' people to treat one new case.

Let me illustrate this with an analogy of a drug trial for drug X. Let's say that I conduct a trial of drug X in primary care among 2005 individuals. Of 2005 approached, 780 consent to take X and of these, 226 have an initial response. The main question I would be asked is how many of the 780 actually had depression? I don't have this figure but I can say that of the 226 responders, 173 were given a Structured Clinical Interview for DSM-IV Axis I disorders (SCID) and of these 71 have depression. Further, unknown to me, 36 of the 71 were already receiving treatment (even though the protocol asked general practitioners to exclude those people with depression already known to them) and ultimately only 17 accepted treatment. Can I conclude from my trial of X that it is not a successful drug because only 17 were newly treated? No. I have demonstrated the difficulty of conducting a pragmatic trial in primary care, but I don't really know the success of X and I don't have any comparative placebo (treatment-as-usual) arm. What does this mean for the interpretation of the paper from Baas et al? From the authors' data the most critical step for useful interpretation of screening yield is revealed from those who have (a) the screen and (b) the criterion reference (gold standard, i.e. SCID). Thus I suggest that:

- (a) the number of detected cases per screen (who had a criterion diagnosis) = 71/173 (41%);
- (b) the number of newly treated cases per screen (who had a criterion diagnosis) = 35/173 (20%);
- (c) the number of helped cases per screen (who had a criterion diagnosis) = 17/173 (10%).