# Correspondence

EDITED BY KHALIDA ISMAIL



## Partial agonists in schizophrenia

The editorial by Bolonna & Kerwin (2005) is both timely and important. The authors succinctly present the case for the use of partial agonists of dopamine receptors, concluding that 'the reviewed evidence suggests a promising future for dopamine receptor partial agonists'. While this is arguably true on the basis of the evidence presented, theoretical and empirical concerns regarding the use of these medications remain.

The introduction of aripiprazole on an individual patient level may prove problematic (DeQuardo, 2004; Ramaswamy *et al*, 2004). Although effective switching strategies from atypical agents to aripiprazole have been described, a number of reports of worsening psychosis following the introduction of aripiprazole (DeQuardo, 2004; Ramaswamy *et al*, 2004) have been published. While these cases may be accounted for by unrelated illness relapse, other theoretical explanations should be considered. Up-regulation of dopamine receptors is well recognised during treatment with neuroleptics, and results in supersensitivity to dopamine at the sites of receptor blockage. This has led to the concept of a neuroleptic-induced supersensitivity psychosis (Steiner *et al*, 1990) wherein up-regulation effectively outstrips receptor blockade with emergent psychosis resistant to treatment. Supersensitivity could explain cases of psychosis developing with aripiprazole. Cessation of an antagonist with subsequent introduction of a partial agonist could result in a net excess of neurotransmission due to over-stimulation of a supersensitive system (despite the partial agonist demonstrating sub-maximal stimulation in normal systems). The high receptor affinity of partial agonists may make such symptoms difficult to treat, as few drugs are likely to be able to displace these agents from receptor complexes. Drugs that can displace partial agonists run the risk of negating the therapeutic effects of stabilisation of the dopaminergic system in schizophrenia, perhaps most importantly at times of relapse when patients are likely to receive 'as required' doses of potent $D_2$ antagonists.

While empirical evidence largely supports the primary efficacy of these agents (DeLeon *et al*, 2004), clinical experience of partial agonists is in its infancy. Good-quality data from naturalistic studies are required to establish the effectiveness of these drugs, but in the meantime we call for post-marketing surveillance to quantify the scale of the problem of cross-titration.

**Bolonna, A. A. & Kerwin, R. W. (2005)** Partial agonism and schizophrenia. *British Journal of Psychiatry*, **186**, 7–10.

**DeLeon, A., Patel, N. C. & Crismon, M. L. (2004)** Aripiprazole: A comprehensive review of its pharmacology, clinical efficacy, and tolerability. *Clinical Therapeutics*, **26**, 649–666.

**DeQuardo, J. R. (2004)** Worsened agitation with aripiprazole: adverse effect of partial agonism? *Journal of Clinical Psychiatry*, **65**, 132–133.

**Ramaswamy, S., Vijay, D., William, M., *et al* (2004)** Aripiprazole possibly worsens psychosis. *International Clinical Psychopharmacology*, **19**, 45–48.

**Steiner, W., Laporta, M. & Chouinard, G. (1990)** Neuroleptic-induced supersensitivity psychosis in patients with bipolar affective disorder. *Acta Psychiatrica Scandinavica*, **81**, 437–440.

**D. A. Cousins, A. H. Young** School of Neurology, Neurobiology and Psychiatry (Psychiatry), University of Newcastle upon Tyne, Leazes Wing, Royal Victoria Infirmary, Newcastle upon Tyne NE1 4LP, UK.
E-mail: d.a.cousins@ncl.ac.uk

## Suicide in prisons

On 13 January 2004 Dr Harold Shipman, a doctor convicted of murder, was found dead in his prison cell, following apparent self-hanging. Subsequent media reports tended to give considerable detail about the apparent circumstances of his death.

In 1999 there were, on average, 1.8 self-inflicted deaths per week in prisons in England and Wales, yielding a rate of 0.3 per 10 000 prisoners per week (HM Prison Service, 2001). Preliminary data for 2003 are similar, indicating 1.8 apparently self-inflicted deaths (inquests pending) per week (Seenan, 2004). In the week following the death of Dr Shipman, five apparently self-inflicted deaths (inquests pending) were reported in prisons in England and Wales (HM Prison Service Safer Custody Group, personal communication, 2004); this apparent peak, however, is similar to that in a comparable week in January 2003.

In Irish prisons, there were nine apparently self-inflicted deaths (inquests pending) between January 2000 and April 2003, yielding a rate of 0.2 per 10 000 prisoners per week (Bresnihan, 2003). In the week following the death of Dr Shipman, there were two apparently self-inflicted deaths (inquests pending; Brady, 2004), yielding an increased rate of 6.4 per 10 000 prisoners that week (Poisson distribution $P=0.0018$). While caution must be exercised when interpreting data about rare events, we none the less believe these data merit explanation.

At a population level, one possible explanation relates to prisoners' average 'dose' of exposure to detailed, graphic media coverage of suicidal behaviour, which is known to affect suicidal behaviour in those exposed (the Werther effect). Interestingly, over 90% of prison cells in Ireland have in-cell television, and, while it is difficult to obtain official figures, it appears that the proportion of cells with in-cell television is substantially lower in England and Wales.

As Shaw *et al* (2004) demonstrate, prison populations often comprise individuals with multiple risk factors for suicide. We suggest that repeated exposure to vivid, detailed accounts of the methods apparently used in high-profile, apparently self-inflicted deaths in prison may be a critical additional risk factor in this population. We renew calls for responsible reporting of suicidal behaviour and for development of improved prison mental health services.

**HM Prison Service (2001)** *Prevention of Suicide and Self-Harm in the Prison Service: An Internal Review.* London: HM Prison Service. http://www.hmprisonservice.gov.uk/filestore/1032_1423.pdf

**Bresnihan, V. (2003)** *To Be or Not to Be, in Observations Cells?* Dublin: Irish Penal Reform Trust.

**Brady, T. (2004)** Probe launched after prisoner found hanged. *Irish Independent*, 17 January 2004. Available



https://doi.org/10.1192/bjp.186.4.354-a Published online by Cambridge University Press

at http://www.unison.ie/irish_independent/index.php3?issue_id=10318

**Seenan, G. (2004)** Hidden toll of a justice system in crisis. *Guardian*, 21 January 2004. Available at http://www.guardian.co.uk/uk_news/story/0,3604,1127369,00.html

**Shaw, J., Baker, D., Hunt, I. M., *et al* (2004)** Suicide by prisoners: national clinical survey. *British Journal of Psychiatry*, **184**, 263–267.

**B. D. Kelly, H. G. Kennedy** National Forensic Psychiatry Service, Central Mental Hospital, Dundrum, Dublin 14, Ireland.
E-mail: brendankelly35@hotmail.com

## Ethnicity and suicidality

Gunnell *et al*'s (2004) interesting study came with useful learning points. However, while known as important factors that influence development and amelioration of suicidal thoughts, ethnicity and religion were not included in the study. As the world has become a small, or big, village, and as we live in a multi-ethnic and multi-religious society, I feel this should be considered as an additional limitation to the study. The relationship between religion and suicide became famous through Durkheim's study in the 19th century.

In European countries, evidence suggests that the prevalence of suicide continues to vary in accordance with international differences in traditions, customs and religious practices (Cavanagh & Masterton, 1998). Cavanagh & Masterton suggested that the strength of these differences is decreasing because of homogenisation among countries. In my opinion, it is unlikely that this influence will completely disappear. In a modern secularised society, religion is still a meaningful and protective factor for many individuals in a suicidal crisis (Lonnqvist, 2000).

Makinen & Wassermann (2001) believe that much of the difference in suicidal behaviour between national groups can be connected with differences in cultural outlook, and state that 'traditionally religion has been considered to be the matrix of culture'.

Various factors that influence development and amelioration of suicidal thoughts do not function separately. I wonder, had ethnicity and religion been included, how would this have affected the outcome?

**Cavanagh, J. T. O. & Masterton, G. (1998)** Suicide and deliberate self-harm. In *Companion to Psychiatric Studies* (6th edn) (eds E. Johnstone, C. Freeman & A. Zealley), pp. 751–783. Edinburgh: Churchill Livingstone.

**Gunnell, D., Harbord, R., Singleton, N., *et al* (2004)** Factors influencing the development and amelioration of suicidal thoughts in the general population. Cohort study. *British Journal of Psychiatry*, **185**, 385–393.

**Lonnqvist, J. K. (2000)** Suicide: epidemiology and causes of suicide. In *New Oxford Textbook of Psychiatry*, vol. 1 (eds M. G. Gelder, J. J. López-Ibor & N. Andreasen), pp. 1033–1039. Oxford: Oxford University Press.

**Makinen, I. H. & Wasserman, D. (2001)** Some social dimensions of suicide. In *Suicide: An Unnecessary Death* (ed. D. Wasserman), pp. 101–108. London: Martin Dunitz.

**M. El-Adl** Princess Marina Hospital, Upton, Northampton NN5 6UH, UK.
E-mail: mamdouh.eladl@nht.northants.nhs.uk

**Authors' reply:** We agree with Dr El-Adl's comment that both ethnicity and religion may influence the incidence of, and recovery from, suicidal thoughts. Data on ethnicity were collected in the Office for National Statistics Survey that formed the basis of our paper (Singleton *et al*, 2001). Because of the relatively small sample size, only 122 (5.1%) of the individuals who reported ethnicity were from a Black or minority ethnic group and only seven of these experienced incident suicidal thoughts. Thus, specific investigation of the impact of belonging to a particular ethnic group was not possible. If the Black and minority groups are combined to give a single group, the odds ratio for incident suicidal thoughts in this group compared with the White group in analyses adjusted for age, gender and score on the Clinical Interview Schedule – Revised is 0.77 (95% CI 0.27–2.17). The breadth of the confidence interval indicates that the data are compatible with either a threefold reduction or a doubling in risk. Data on religion were not collected in the Office for National Statistics Survey of Psychiatric Morbidity.

**Singleton, N., Bumpstead, R., O'Brien, M., *et al* (2001)** *Psychiatric Morbidity among Adults Living in Private Households, 2000*. London: Stationery Office.

**D. Gunnell, R. Harbord** Department of Social Medicine, University of Bristol, Canynge Hall, Whiteladies Road, Bristol BS8 2PR, UK.
E-mail: D.J.Gunnell@bristol.ac.uk

**N. Singleton** Social Survey Division, Office for National Statistics, London, UK

**R. Jenkins** WHO Collaborating Centre, Institute of Psychiatry, London, UK

**G. Lewis** Division of Psychiatry, Cotham House, University of Bristol, Bristol, UK

## Attention deficit disorder in adults

The editorial on attention-deficit hyperactivity disorder and life-span development (McArdle, 2004) is timely. However, it highlights the issues from the perspective of clinicians who may be directly involved in treating the disorder.

In general adult psychiatry, however, it is not widely recognised that (adult) attention-deficit disorder (ADD) is not uncommon and that people presenting with diagnoses of psychotic disorders, mood disorders, anxiety disorders, etc., may also be suffering from unrecognised ADD. This has profound implications for both treatment and outcome. For example, if a person develops a hypomanic or manic episode superimposed on ADD, it is possible that the clinician unaware of ADD may end up overtreating the mood episode, as the baseline ADD may mislead the clinician into believing that the talkativeness and hyperactivity (of ADD) are an indication of elevated mood. The consequences include higher than necessary doses of medications, combination pharmacotherapy and increased length of stay in hospital. In patients with schizophrenia it is possible that the impairments in functioning caused by independent ADD may potentiate the poor functioning caused by schizophrenia. Again, if ADD is not recognised, it is possible that the poor outcome may be attributed to 'resistant' or 'residual' schizophrenia or perhaps to poor motivation. It is important to assess comorbidity such as ADD at the very first contact with mental health services, and early intervention service providers are ideally placed for this.

Regarding treatment, new strategies (other than stimulant medications) need to be developed, as stimulants may have destabilising effects on the baseline mental illness.

**McArdle, P. (2004)** Attention-deficit hyperactivity disorder and life-span development. *British Journal of Psychiatry*, **184**, 468–469.

**P. Gangdev** Tooting and Furzedown Community Mental Health Trust, Springfield University Hospital, 61 Glenburnie Road, London SW17 7DJ, UK. E-mail: Prakash.Gangdev@swlstg-tr.nhs.uk

## Risk reduction studies in schizophrenia

Niemi *et al*'s (2004) report does not truly address the implications of their findings. Their clinical implications (p. 16)



https://doi.org/10.1192/bjp.186.4.354-a Published online by Cambridge University Press