

Editorial

No psychiatry without psychopharmacology

Paul J. Harrison, David S. Baldwin, Thomas R. E. Barnes, Tom Burns, Klaus P. Ebmeier, I. Nicol Ferrier and David J. Nutt

**Summary**

The use of psychotropic medication is an important part of most psychiatrists' clinical practice. We propose here that psychiatry needs to give more prominence to psychopharmacology in order to ensure that psychiatric drugs are used effectively and safely. The issue has several ramifications, including the future of psychiatry as a medical discipline.

Declaration of interest

P.J.H., D.S.B., T.R.E.B., I.N.F. and D.J.N. have received honoraria for lectures, chairing meetings or for attending scientific advisory boards, and grants for investigator-initiated research projects, from various pharmaceutical companies. P.J.H. has been Treasurer of the British Association for Psychopharmacology (BAP), and is a member of the Psychopharmacology Special Interest Group (PSIG).

D.S.B. is Chair of PSIG and a member of BAP Council. T.R.E.B. is a former President of BAP, former Chair of PSIG, and is Joint Head of the Prescribing Observatory for Mental Health-UK. K.P.E. has received travel expenses from the Magstim Company and from Alzheimer UK, and funding from various pharmaceutical companies in support of training days for National Health Service colleagues. He is a member of BAP and PSIG. I.N.F.'s honoraria are all paid into a Newcastle University account for supporting research. He is President of the BAP and a member of PSIG. D.J.N. has grant support from, and holds share options in, P1Vital. He is President of the European College of Neuropsychopharmacology, a former President of the BAP, and President-Elect of the British Neuroscience Association. He is Editor of the *Journal of Psychopharmacology* and an advisor to the *British National Formulary*.

Paul J. Harrison (pictured) is Professor of Psychiatry and an honorary general adult psychiatrist. He trained in Oxford and London. His research focuses on the neurobiology of psychosis. David S. Baldwin is Professor of Psychiatry and an honorary general adult psychiatrist. Thomas R. E. Barnes is Professor of Clinical Psychiatry and an honorary general adult psychiatrist. Tom Burns is Professor of Social Psychiatry and an honorary general adult psychiatrist. Klaus P. Ebmeier is Professor of Old Age Psychiatry and an honorary consultant psychiatrist. I. Nicol Ferrier is Professor of Psychiatry and an honorary general adult psychiatrist. David J. Nutt is Professor of Neuropsychopharmacology and an honorary general adult psychiatrist.

The essence and future of psychiatry is a topic of renewed discussion. In one such editorial, Craddock *et al* listed several core attributes of the psychiatrist.¹ They omitted one which we think is also important, and which has relevance for psychiatry as a medical specialty: expertise in psychopharmacology.

Psychopharmacology in psychiatric practice

Most psychiatrists use medicines routinely in their clinical work. This is based on a substantial body of research – randomised controlled trials synthesised in meta-analyses, systematic reviews, and practice guidelines – which together show that contemporary psychotropic medications are effective, acceptably safe when used carefully, and helpful in the management of many disorders. We assume it is not disputed that anyone prescribing should know the indications and contraindications of each drug and their effects, adverse effects and interactions. Expertise should include not just the practicalities of prescribing and the evidence on which it is based, but also knowledge of the essentials of drugs' mechanisms of action and the relevant underlying science. After all, no one is expected to do psychotherapy without a sound grounding in the theory as well as in the practice.

In this context, the time is ripe for a review of the level of psychopharmacological knowledge and skills which psychiatrists

have and which they should be expected to have. The Royal College of Psychiatrists has been largely silent on this matter. In the 58-page *Roles and Responsibilities of the Consultant in General Adult Psychiatry*,² just two lines are devoted to psychopharmacology: 'detailed knowledge and understanding of risks and benefits; wide experience of application of such treatments'. (It is also interesting that risks are highlighted before benefits.) There would seem to be considerable room for improvement in terms of using psychotropic drugs with maximal effectiveness and safety,^{3,4} including issues of excessive dosing and polypharmacy⁵ and inadequate monitoring.^{6,7} More difficult to measure, but also important, is the extent to which drug treatment is discussed with, and offered to, patients in line with National Institute for Health and Clinical Excellence (NICE) and other evidence-based guidelines. A further reason to advocate a greater and career-long emphasis on skills in psychopharmacology is that competence in this area is likely to become a key issue for appraisal and revalidation: drugs have the potential to cause serious harm, and drug treatment provides a number of objective and readily auditable indices. Demonstrable expertise should be expected not only in the adherence to treatment guidelines but, importantly, in competence in using drugs in more complex cases – including combinations and off-label uses – when guidelines do not exist or where deviation from them is indicated.⁸ Finally, the potential for medication-related litigation – for errors of omission and of commission – should not be overlooked.

Although medication plays a lesser role in some subspecialties and posts, patients and carers should be entitled to expect that all psychiatrists have up-to-date knowledge of and balanced views about the role of drugs. Equally, a focus on psychopharmacology in no way diminishes the contribution of psychological and social treatments, nor the importance of the relationship between psychiatrist and patient. Indeed, particular skills in this regard are needed to ensure informed consent and promote treatment adherence.⁹

Psychopharmacology in psychiatric training

The foundation for psychopharmacological expertise among consultant psychiatrists is adequate teaching and exposure during training. The limited pharmacological knowledge of newly qualified doctors¹⁰ highlights the need for this postgraduate education to be substantial and rigorous. The new core curriculum for psychiatry mentions psychopharmacology once in its 50 pages: ‘Show a clear understanding of physical treatments including pharmacotherapy, including pharmacological action, clinical indication, side-effects, drug interactions, toxicities, appropriate prescribing practices, and cost effectiveness; electro-convulsive therapy and light therapy’ (p. 29).¹¹ We question whether this succinct statement, buried among over 200 other core competencies, is adequate for such a key area of clinical practice.

The crux of the matter is whether psychiatrists complete their training with sufficient clinical psychopharmacological competence. Anecdotally, we have our doubts, although we are not aware of good evidence. If there is a problem, it is not the fault of trainees: one manifestation of the lack of emphasis given to psychopharmacology is that the teaching provision is often limited or difficult to obtain. The only well-established, non-industry supported courses in the UK that we are aware of are those run by the British Association for Psychopharmacology, and they are oversubscribed and do not cover the whole syllabus. Most trainees presumably rely on the teaching provided by their local MRCPsych course (which may or may not be sufficient), independent learning, and following the practice of senior colleagues.

If psychopharmacology is to be an important component of what psychiatrists do, it requires a corresponding degree of prioritisation during training. The current situation appears to be unsatisfactory; at the very least, it merits review. This should include clarification as to where responsibilities lie for determining the psychopharmacological knowledge and skills expected, and for delivering the training – the latter applies to medical student teaching as well as to psychiatric trainees.

Psychiatry without psychopharmacology?

Some might disagree with the premise that psychopharmacology should be a core, prominent attribute of psychiatrists. The alternative position is tenable if one believes (for ideological or other reasons) that drug therapy has only a peripheral or limited part to play in mental healthcare, or if others are expected to do the prescribing.

One could advocate, for example, for the emergence of a small number of specialist psychopharmacologists who would provide a service for patients who require complex, unusual or potentially toxic drug regimens, or whose treatment is complicated by medical comorbidity. For all other patients, prescribing could be done algorithmically by their general practitioner, in liaison with mental health teams which would deliver psychological and social interventions. However, we view this option as undesirable. First, although not formally evaluated, the experience of an exclusively psychopharmacological role for psychiatrists in the US community mental health centres was unsatisfactory both for the clinicians and the centres;¹² similarly, utilising the psychiatrist as an available but otherwise disengaged psychopharmacology expert was not favoured by successful home-based treatment services.¹³ Second, the ‘specialist psychopharmacologist’ scenario could have significant ramifications for the future of psychiatry. Elsewhere in medicine, prescribing is one of the defining characteristics of a doctor: ‘for most doctors, prescribing a

medicine is the most significant action they will undertake in patient care’ (p. 24).¹⁴ Clearly, it is not the sole one, nor in the era of nurse prescribing is it an exclusive one, nor in psychiatry does it have this therapeutic pre-eminence. But several of the other roles of a doctor taken for granted in other specialties, such as clinical leadership and working within an explicit medical model, are also contentious within psychiatry.^{1,15,16} The widespread shift towards the physical health of psychiatric patients (except in-patients) becoming *de facto* the responsibility of primary care removes another reason for all psychiatrists to be medically trained. Without psychopharmacology expertise as one of the central characteristics of our specialty, the case is further weakened. In turn, the number of psychiatrists required, and their perceived value and status – financial and otherwise – could be open to debate. This scenario might have been unthinkable in the past – although the issue has been raised in various guises over the years^{17–20} – but the National Health Service and other healthcare systems in years to come will have no such qualms. A similar conclusion, that ‘we are ripe for culling, to be replaced by fitter, cheaper health professionals’ was also recently reached – ironically, referring to medical psychotherapists.²¹

Conclusions

Ultimately, it is not the future of psychiatry or psychiatrists that matters, but the quality of patient care. In this regard, the evidence that psychotropic drugs are beneficial when used in the right way and for the correct indications is unequivocal, and at least as substantial as the evidence for psychological therapies. The question is how and by whom the necessary expertise is to be provided. We view the current situation, at least in the UK, as requiring attention. Our preference is that psychopharmacology is (re-)affirmed as an integral and significant component of what (most) psychiatrists do; if so, we should expect a commensurately high level of knowledge and practice. A greater focus on psychopharmacology would benefit patients by improving standards in the effective and judicious use of medication. We suspect it would also contribute to making psychiatry a more attractive clinical and academic career choice for young doctors. Finally, it would help define psychiatrists among other mental health professionals, and help ensure that our specialty continues to flourish as a medical discipline.

Paul J. Harrison, DM Oxon, FRCPsych, Department of Psychiatry, University of Oxford; **David S. Baldwin**, DM, FRCPsych, Department of Psychiatry, Faculty of Medicine, University of Southampton; **Thomas R. E. Barnes**, FRCPsych, DSc, Centre for Mental Health, Imperial College London; **Tom Burns**, FRCPsych, DSc, **Klaus P. Ebmeier**, MD, FRCPsych, Department of Psychiatry, University of Oxford; **I. Nicol Ferrier**, MD, FRCPsych, FRCP (Ed), Academic Psychiatry, Institute of Neuroscience, Newcastle University, Newcastle; **David J. Nutt**, DM, FRCPsych, FRCP, Department of Neuropsychopharmacology, Imperial College London, UK

Correspondence: Paul J. Harrison, Department of Psychiatry, University of Oxford, Warneford Hospital, Oxford OX3 7JX, UK. Email: paul.harrison@psych.ox.ac.uk

First received 9 May 2011, accepted 17 May 2011

Acknowledgements

We thank Rachel Clarke, Phil Cowen, John Geddes, Guy Goodwin and Shitij Kapur for helpful comments and discussions.

References

- Craddock N, Kerr M, Thapar A. What is the core expertise of the psychiatrist? *Psychiatrist* 2010; **34**: 457–60.

- 2 Royal College of Psychiatrists. *Roles and Responsibilities of the Consultant in General Adult Psychiatry* (Council Report CR140). Royal College of Psychiatrists, 2006.
- 3 Maidment ID, Lelliott P, Paton C. Medication errors in mental healthcare: a systematic review. *Qual Safety Health Care* 2006; **15**: 409–13.
- 4 Procyshyn RM, Barr AM, Brickell T, Honer WG. Medication errors in psychiatry: a comprehensive review. *CNS Drugs* 2010; **24**: 595–609.
- 5 Paton C, Barnes TRE, Cavanagh M-R, Taylor D, Lelliott P. High-dose and combination antipsychotic prescribing in acute adult wards in the UK: the challenges posed by p.r.n. prescribing. *Br J Psychiatry* 2008; **192**: 435–9.
- 6 Barnes TR, Paton C, Hancock E, Cavanagh M-R, Taylor D, Lelliott P. Screening for the metabolic syndrome in community psychiatric patients prescribed antipsychotics: a quality improvement programme. *Acta Psychiatr Scand* 2008; **118**: 26–33.
- 7 Collins N, Barnes TRE, Shingleton-Smith A, Gerrett D, Paton C. Standards of lithium monitoring in mental health trusts in the UK. *BMC Psychiatry* 2010; **10**: 80.
- 8 Baldwin DS, Kosky N. Off-label prescribing in psychiatric practice. *Adv Psychiatr Treat* 2007; **13**: 414–22.
- 9 Cowen PJ. Has psychopharmacology got a future? *Br J Psychiatry* 2011; **198**: 333–5.
- 10 Likic R, Maxwell SRJ. Prevention of medication errors: teaching and training. *Br J Clin Pharmacol* 2009; **67**: 656–61.
- 11 Royal College of Psychiatrists. *A Competency Based Curriculum for Specialist Training in Psychiatry*. Royal College of Psychiatrists, 2010 (<http://www.rcpsych.ac.uk/training/curriculum2010.aspx>).
- 12 Talbott JA, Clark GHJ, Sharfstein SS, Klein J. Issues in developing standards governing psychiatric practice in community mental health centers. *Hosp Commun Psychiatry* 1987; **38**: 1198–202.
- 13 Wright C, Catty J, Watt H, Burns T. A systematic review of home treatment services. Classification and sustainability. *Soc Psychiatry Psychiatr Epidemiol* 2004; **39**: 789–96.
- 14 Royal College of Physicians. *Innovating for Health: Patients, Physicians, the Pharmaceutical Industry and the NHS. Report of a Working Party*. Royal College of Physicians, 2009.
- 15 Shah P, Mountain D. The medical model is dead – long live the medical model. *Br J Psychiatry* 2007; **191**: 375–7.
- 16 Craddock N, Antebi D, Attenburrow M-J, Bailey A, Carson A, Cowen P, et al. Wake-up call for British psychiatry. *Br J Psychiatry* 2008; **193**: 6–9 [and responses: **193**: 510–7].
- 17 Kessel N. Who ought to see a psychiatrist? *Lancet* 1963; i: 1092–4.
- 18 Shepherd M. Who should treat mental disorders? *Lancet* 1982; i: 1173–5.
- 19 Wilkinson G. I don't want you to see a psychiatrist. *BMJ* 1988; **297**: 1144–5.
- 20 Anonymous. Molecules and minds. *Lancet* 1994; **343**: 681–2.
- 21 Denman C. A modernised psychotherapy curriculum for a modernised profession. *Psychiatrist* 2010; **34**: 110–3.