

Correspondence

Edited by Kiriakos Xenitidis and
Colin Campbell

Contents

- Do we need to treat aggression?
- Ward overcrowding and assaults on staff: cause and effect?

Do we need to treat aggression?

'Once upon a time, plenty of children were unruly, some adults were shy, and bald men wore hats. Now all of these descriptions might be attributed to diseases – entities with names, diagnostic criteria, and an increasing array of therapeutic options.'¹

Aggression in the absence of any disorder could just be that – aggression – or in other words, bad or criminal behaviour. Why are we so keen to medicalise bad behaviour or any other behaviour that is not within the 'defined' or accepted norms?

I think it is good thing that ICD has not yet included diagnoses such as 'intermittent explosive disorder'. Although we have come a long way from the time when modern medicine was accused of being a major threat to the world's health,² have we now gone too far in the opposite direction?

The problem of medicalisation is that it does not stop at that: it is only the beginning of a chaos that runs out of control. Once you make a diagnosis, you then have to treat the disorder. Often, behavioural problems are treated with medications that are not licensed for such indications, which in itself is bad practice in many cases. All treatments have their side-effects and many people are unnecessarily exposed to them. False hope is given to 'patients', their families and society. A culture is promoted in which people want medical solutions to all their problems, rather than taking responsibility for their actions. The cost of treatment adds up to a huge amount.

Also, costly research, including randomised controlled trials and meta-analysis, has to be carried out to establish the efficacy of these treatments. Often it reveals little or no evidence of efficacy. One simple reason could be that, for a treatment to be effective, there needs to be a real target illness.

In their meta-analysis, Jones *et al* conclude that the use of mood stabilisers resulted in an overall reduction in aggression.³ However, given the high level of heterogeneity between studies and the risk of publication bias in half of them, the results suggest that there is actually not enough evidence to support this statement.

In the end, the authors recommend further randomised controlled trials. I would like to ask whether there is enough evidence to justify the cost of such trials, in terms of money and of the time and efforts of highly qualified professionals. What about schizophrenia and depression, which remain the leading causes of morbidity across the world, yet for which there are still relatively limited treatment options?

1 McLellan F. Medicalisation: a medical nemesis. *Lancet* 2007; **369**: 627–8.

2 Illich I. *Medical Nemesis*. Bantam, 1977.

3 Jones RM, Arlidge J, Gillham R, Reagu S, van den Bree M, Taylor PJ. Efficacy of mood stabilisers in the treatment of impulsive or repetitive aggression: systematic review and meta-analysis. *Br J Psychiatry* 2011; **198**: 93–8.

Salman A. Mushtaq, Specialty Registrar in General Adult Psychiatry, South Essex Partnership University NHS Foundation Trust, UK. Email: ghazalzee@hotmail.com

doi: 10.1192/bjp.198.5.408

Author's reply: Once upon a time the depressed were idle, the psychotic were possessed, and those suffering with any form of mental illness were punished, exorcised, ridiculed, confined, excluded or criminalised.

Thankfully, as a result of investment in research, there have been significant advances in the understanding of the brain and the biological underpinnings of mental disorders, emotions and behaviours, including aggression. To advocate the omission of the scientific study of aggression from that of the rest of the brain would be anomalous, to say the least.

Aggression can indeed lead to 'bad behaviour', as indicated by Dr Mushtaq, but to conclude that they are synonymous is inaccurate and is missing the point. Many individuals are extremely distressed by the impact of their own propensity to extreme anger or aggression. Many seek help, but often little is available. Without research into the efficacy and safety of potential interventions, be they medical, psychological or social, there would be no evidence to guide practice. Effective help is needed, not ostracism.

Dr Mushtaq makes a thoughtful point about medicalising conditions that do not fall within accepted norms. This is indeed a problem of the traditional medical model, in which there is a demand to dichotomise continuous symptoms or physio-biochemical measures (such as those of anxiety, mood, blood pressure, or haemoglobin concentration) into 'health' or 'disease'. Such a blunt approach is often arbitrary, and unsatisfactory, but the medical community seems to demand it. After all, how can you treat something unless it is an illness? Without clear boundaries between health and disease, fears of chaos and uncertainty abound, as Dr Mushtaq describes. Deciding on a threshold and giving it a label certainly has its place, but from an individual's perspective, it is the serious impact those symptoms have on their lives that is of most concern, and a desire to obtain relief. Health and illness of the human brain are more complex than dichotomies, and research is required to elucidate this subtlety and to identify and improve treatments. Without research, psychiatry would still be in the dark ages.

Roland M. Jones, Consultant Forensic Psychiatrist and Joint MRC/Welsh Assembly Research Training Fellow, Department of Psychological Medicine and Neurology, School of Medicine, Cardiff University, Cardiff, and Llanarth Court Hospital, Abergavenny, UK. Email: jonesrm6@cf.ac.uk

doi: 10.1192/bjp.198.5.408a

Ward overcrowding and assaults on staff: cause and effect?

Virtanen *et al* draw our attention to the important problem of overcrowding in psychiatric wards and its association with increased risk of violence directed at staff.¹ There appears to be an error in the results section of the paper, in which it is reported that men are more likely than women to be working in high-occupancy wards. This is contrary to what is presented in Table 1, where women are more likely than men to be working in such wards.

Among the limitations of their study that the authors list is that data were drawn solely from the retrospective self-reports of staff, potentially resulting in errors arising from recall problems and under- or overreporting. In future prospective research, the use of structured instruments such as the Overt Aggression Scale² or the Staff Observation Aggression Scale³ could minimise under- and overreporting.

The authors suggest a dose–response pattern after they found a strong linear trend between higher bed occupancy rates and a

high probability of assault. The dose–response relationship is one of the Bradford Hill criteria of causation,⁴ which outline the minimal conditions needed to establish a causal relationship between two items. In addition to the reported dose–response relationship, other criteria need to be fulfilled before one can establish a causal relationship between higher occupancy rates and violence. This study was unable to collect data relating to staffing variables and acuity levels of the wards, which may be associated with the incidence of aggression. Complex relationships have been reported between staffing, patient mix and violence. Risk of violence has been reported to increase with higher numbers of nursing and non-nursing staff on planned leave, of patients known to instigate violence, of disoriented patients, of patients detained compulsorily, and with more use of seclusion. Risk of violence has been reported to decrease with higher numbers of young staff (under 30 years old), of nursing staff with unplanned absenteeism, of admissions and of patients with substance misuse or physical illness.⁵ It will be necessary for future studies to take into account other possible explanations (as mentioned above) and effectively rule out such alternate explanations in order to fulfil all of the Bradford Hill criteria, one of which is ‘consideration of alternate explanations’.

- 1 Virtanen M, Vahtera J, Batty GD, Tuisku K, Pentti J, Oksanen T, et al. Overcrowding in psychiatric wards and physical assaults on staff: data-linked longitudinal study. *Br J Psychiatry* 2011; **198**: 149–55.
- 2 Yudofsky SC, Silver JM, Jackson W, Endicott J, Williams D. The Overt Aggression Scale for the objective rating of verbal and physical aggression. *Am J Psychiatry* 1986; **143**: 35–9.
- 3 Palmstierna T, Wistedt B. Staff Observation Aggression Scale: presentation and evaluation. *Acta Psychiatr Scand* 1987; **76**: 657–63.
- 4 Abruzzi WA. Hill's Criteria of Causation. 2011 (http://www.drabruzzo.com/hills_criteria_of_causation.htm).
- 5 Owen C, Tarantello C, Jones M, Tennant C. Violence and aggression in psychiatric units. *Psychiatr Serv* 1998; **49**: 1452–7.

Mohinder Kapoor, Specialty Registrar (ST5) in Old Age Psychiatry, South West Yorkshire Partnership NHS Foundation Trust, Beckside Court, 286 Bradford Road, Batley WF17 5PW, UK. Email: moekpr@yahoo.co.uk

doi: 10.1192/bjp.198.5.408b

Authors' reply: We are of course pleased by Dr Kapoor's interest in our paper on overcrowding in hospital wards and physical assaults on staff.¹ The impact of overcrowding is a serious, albeit understudied, problem in healthcare research. In addition to the potentially increasing risk of violence perpetrated by patients, overcrowding has been shown to be associated with work overload in hospital staff and an increase in their risk of mental health problems.^{2–4}

Dr Kapoor suggests that we were in error in reporting in the text that men were more likely than women to be working in high-occupancy wards. This is a misunderstanding. In Table 1, the proportion of men was indeed higher in overcrowded wards. More specifically, 264 of all 343 men in the study (77%) worked in wards with excess bed occupancy; 193 men (56%) worked in wards with the highest overcrowding. The number of women in overcrowded wards was 506, that is, 67% of all 755 women; 317 women (42%) worked in wards with the highest overcrowding. Conversely, 79 men (23%) and 249 (33%) women worked in wards with no overcrowding.

We agree with Dr Kapoor's view that simply by satisfying one of the Bradford Hill criteria of causation (in this case, temporality) does not provide sufficient evidence of a causal link between exposure and outcome. There is currently no consensus on the number of criteria required for determining whether an observed association is causal.⁵ Dr Kapoor also referred to another of Bradford Hill's criteria – consideration of alternate explanations for a given association. Interpretation of findings from observational studies are inevitably constrained by concerns over confounding; that is, the role of unmeasured or poorly measured covariates. As we were careful to do in the paper, Dr Kapoor also describes some examples of such confounding factors.

We agree that the Overt Aggression Scale could provide interesting comparison to our findings. However, this scale (or its newer revised version) does not specifically measure physical assaults on staff, which was our study question, but instead a large spectrum of aggressive behaviours ranging from unspecified verbal aggression (loud noises, shouting) to physical attacks, which are not defined specifically as attacks on staff.⁶ However, owing to the extra resources needed and their time-consuming nature, such detailed instruments are most suitable for smaller-scale studies. In a large study involving 1098 staff drawn from 90 bed-wards, use of those instruments would not have been feasible.

Finally, just as any discussion section based on analyses of observational data inevitably touches on the problem of confounding, though similarly trite, it is also true to state, as Dr Kapoor indicates, that additional studies are now required to replicate and extend our findings before we can conclude with certainty that overcrowding increases physical assaults on staff.

- 1 Virtanen M, Vahtera J, Batty GD, Tuisku K, Pentti J, Oksanen T, et al. Overcrowding in psychiatric wards and physical assaults on staff: data-linked longitudinal study. *Br J Psychiatry* 2011; **198**: 149–55.
- 2 Kivimäki M, Vahtera J, Kawachi I, Ferrie JE, Oksanen T, Joensuu M, et al. Psychosocial work environment as a risk factor for absence with a psychiatric diagnosis: an instrumental-variables analysis. *Am J Epidemiol* 2010; **172**: 167–72.
- 3 Virtanen M, Pentti J, Vahtera J, Ferrie JE, Stansfeld SA, Helenius H, et al. Overcrowding in hospital wards as a predictor of antidepressant treatment among hospital staff. *Am J Psychiatry* 2008; **165**: 1482–6.
- 4 Virtanen M, Batty GD, Pentti J, Vahtera J, Oksanen T, Tuisku K, et al. Patient overcrowding in hospital wards as a predictor of diagnosis-specific mental disorders among staff: prospective cohort study. *J Clin Psychiatry* 2010; **71**: 1308–12.
- 5 Bradford Hill A. The environment and disease: association or causation? *Proc Royal Soc Med* 1965; **58**: 295–300.
- 6 Mattes JA. Suggested improvements to the Overt Aggression Scale – Modified. *J Neuropsychiatry Clin Neurosci* 2010; **22**: E1.

Marianna Virtanen, Senior Researcher, Finnish Institute of Occupational Health, Helsinki, Finland; **Jussi Vahtera**, Finnish Institute of Occupational Health, Helsinki, and Department of Public Health, University of Turku and Turku University Hospital, Turku, Finland; **G. David Batty**, University College London, Department of Epidemiology and Public Health, Medical Research Council Social and Public Health Sciences Unit, Glasgow, and Centre for Cognitive Ageing and Cognitive Epidemiology, University of Edinburgh, UK; **Katinka Tuisku**, Finnish Institute of Occupational Health and Hospital District of Helsinki and Uusimaa, Department of Psychiatry, Helsinki; **Jaana Pentti**, **Tuula Oksanen**, Finnish Institute of Occupational Health, Helsinki, Finland and Harvard School of Public Health, Department of Society, Human Development and Health, Harvard University, Boston, USA; **Paula Salo**, **Kirsi Ahola**, Finnish Institute of Occupational Health, Helsinki; **Mika Kivimäki**, Finnish Institute of Occupational Health, Department of Behavioural Sciences, University of Helsinki, Finland and University College London, Department of Epidemiology and Public Health, London, UK. Email: marianna.virtanen@ttl.fi

doi: 10.1192/bjp.198.5.409