

Correspondence

EDITED BY KIRIAKOS XENITIDIS and COLIN CAMPBELL

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Smoke-free mental health units

Jochelson (2006) highlights the very important challenges that mental health units in the UK are likely to face in becoming smoke-free environments. Although there is very little doubt about the benefits of protecting patients and staff from the direct and indirect effects of smoking, the crude application of regulations of the English Health Act 2006 to all psychiatric settings might not be entirely beneficial and some patients might need to be exempt. Individuals presenting with severe psychopathology, those lacking capacity to agree to nicotine replacement treatment and individuals admitted under the Mental Health Act 1983 who have reduced civil liberties and limited access to outdoor space raise considerable concerns. Under these circumstances a forced nicotine withdrawal is likely. This iatrogenic phenomenon is associated with significant risks such as severe exacerbation or misinterpretation of psychiatric symptoms (Greeman & McClellan, 1991; Dalak & Meador-Woodruff, 1996), and pharmacokinetic changes resulting in increased concentration of psychotropic medications (Hughes, 1993).

Jochelson minimises concern that under these circumstances there might be an increased risk of aggressive behaviour in psychiatric patients. The reality is that it is very difficult to be certain because the literature offers controversial findings. In older studies, which report negative results, the information is mostly retrospective and qualitative, and studies have adopted different outcome measures and failed to control for a number of fundamental variables such as access to the outside, which may vary according to staff availability and patient status (e.g. under the Mental Health Act 1983), hospital setting (in-patients, out-patients, intensive care units, etc.), psychiatric diagnosis, degree of psychopathology, level of dependence, comorbidity with other addictive behaviours, motivation, etc. (For

review see El-Guebaly *et al*, 2002.) This has resulted in the limited generalisability of the findings. More recent studies have controlled for these variables and have reported increased irritability and agitation among psychiatric patients, with disengagement from services and premature discharge (e.g. Prochaska *et al*, 2004). It is also noteworthy, if the ban is intended to enhance the long-term health of psychiatric patients, that experience emerging from other countries where smoking bans in psychiatric hospitals have already been implemented suggests that resumption of smoking after discharge is the most likely outcome, with questionable long-term effects (El-Guebaly *et al*, 2002; Lawn & Pols, 2005; Prochaska *et al*, 2006).

Effective measures to increase the chance of positive health benefits could be based on evidence emerging from the treatment of nicotine addiction in hospitalised patients. An effective strategy includes diagnosis and treatment planning with nicotine replacement therapy or bupropion, on-unit dedicated smoking cessation counselling, reasonably extensive behavioural support, and post-discharge referral for treatment of nicotine dependence (West, 2002). Eliminating the burden of tobacco use in psychiatric hospitals is a public health priority but must be delivered in such a way that risks are minimised in otherwise vulnerable individuals and healthcare systems are developed that are capable of delivering effective treatments.

Dalak, G. & Meador-Woodruff, J. (1996) Smoking withdrawal, and schizophrenia: case reports and a review of the literature. *Schizophrenia Research*, **22**, 133–141.

El-Guebaly, N., Cathcart, J., Currie, S., et al (2002) Public health and therapeutic aspects of smoking bans in mental health and addiction settings. *Psychiatric Services*, **53**, 1617–1622.

Greeman, M. & McClellan, T. (1991) Negative effects of a smoking ban on an inpatient psychiatric service. *Hospital and Community Psychiatry*, **42**, 408–441.

Hughes, J. (1993) Treatment of smoking cessation in smokers with past alcohol/drug problems. *Journal of Substance Abuse Treatment*, **10**, 181–187.

Jochelson, K. (2006) Smoke-free legislation and mental health units: the challenges ahead. *British Journal of Psychiatry*, **189**, 479–480.

Lawn, S. & Pols, R. (2005) Smoking bans in psychiatric inpatient settings? A review of the research. *Australian and New Zealand Journal of Psychiatry*, **39**, 866–885.

Prochaska, J. J., Gill, P. & Hall, S. (2004) Treatment of tobacco use in an inpatient psychiatric setting. *Psychiatric Services*, **55**, 1265–1270.

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D. Arnone Department of Addictive Behaviour, St George's Hospital Medical School, London and Department of Psychiatry, Warneford Hospital, Oxford, UK. Email: danilo.arnone@psych.ox.ac.uk

L. J. Simmons St Mary's Hospital, Portsmouth Hospitals NHS Trust, Portsmouth, UK

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Jochelson (2006) has described the issues that arise for mental health units in England and Wales as a result of the Health Act 2006 which will ban smoking in public places. The proposed regulations will require most mental health units to ensure that the wards and the communal areas are smoke free. However, Jochelson does not consider the challenge to the implementation of the regulations presented by patients detained under the Mental Health Act 1983. These patients are detained in hospital against their will and are very likely receiving treatment to which they have not consented. Not only will they be deprived of their liberty but, if they are smokers, may also be forced to stop smoking. To compel a patient to stop smoking is unlikely to be a lawful use of the powers of the Mental Health Act 1983. To enforce a ban on smoking could be found to be an unjustifiable interference with the patient's human rights, if subjected to a legal challenge (Mental Health Act Commission, 2006a).

Patients may be allowed to smoke outside the building, but for some patients on some units this may not be possible because of the risk posed to themselves or others. The regulations will allow units that normally provide accommodation for more than 6 months to have a designated smoking room. However, figures from a national census of mental health hospitals in England and Wales in March 2006 suggest

that approximately half of the 14 300 patients detained had not been resident for 6 months (Mental Health Act Commission, 2006b). A majority of all detained patients are likely to spend at least an initial period in acute or admission units, and many will not move into 'long-term residential units'. The Mental Health Act Commission has suggested that the Government should consider widening the scope of the proposed regulations to allow units where patients are detained to qualify as 'specified premises' and to provide indoor designated smoking facilities.

Jochelson, K. (2006) Smoke-free legislation and mental health units: the challenges ahead. *British Journal of Psychiatry*, **189**, 479–480.

Mental Health Act Commission (2006a) *Eleventh Biennial Report 2003–2005*. TSO (The Stationery Office).

Mental Health Act Commission (2006b) Response to the Department of Health Smoke-Free Regulations Consultation. *MHAC Policy Briefing* (issue 14, August 2006) Annex C. <http://www.mhac.org.uk/Pages/policybriefings.html>

A. Williams Rhiwbina, Cardiff, UK.
Email: ajjmwilliams@btinternet.com
doi: [10.1192/bjp.190.5.449a](https://doi.org/10.1192/bjp.190.5.449a)

X-chromosome abnormality and schizophrenia

Van Rijn *et al* (2006) concluded that their findings suggested a link between an X chromosomal abnormality and liability to schizophrenia which might be useful in the search for the genetic aetiology. Moreover they stated that a crucial role for X chromosome abnormalities in this context has been proposed by Lishman (1998). In 1966 Lambert described a group of 75 XXY men, of whom 17 had hallucinations, 21 paranoid ideas, 9 'megalomaniac ideas' and 5 'short periods of mania-like disorder'. Penrose (1966) claimed that 'the effects of sex chromosomal disorders are more noticeable in relation to alterations in character and stability than to intellectual loss. Olanders (1975), working in the same research group as Lambert and Penrose, reported 16 women with schizophrenia among 31 with triple X syndrome. Olanders' own psychiatric investigation of these women revealed many with paranoid symptoms who did not meet his strict criteria for schizophrenia. He described a paranoid syndrome in 8, hallucinations in 4, confusion in 3 and catatonic symptoms in 2.

Van Rijn *et al* discuss the relationship between an extra X chromosome and psychosis through the 'decreased cerebral lateralisation' hypothesis. Netley & Rovet (1982) reviewed data which point to diminished cerebral cell numbers owing to lower mitotic rates which also result in the lower dermal ridge counts. I think that a lower cerebral cell number could give rise to decreased cerebral lateralisation, but this needs further investigation.

In my opinion, Van Rijn *et al* present no new data but have rediscovered what was known for a long time.

Hambert, G. (1966) *Males with Positive Sex Chromatin. An Epidemiologic Investigation Followed by Psychiatric Study of Seventy-Five Cases*. Akademiförlaget.

Lishman, W. A. (1998) Endocrine diseases and metabolic disorders. In *Organic Psychiatry: The Psychological Consequences of Cerebral Disorder* (ed. W. A. Lishman), pp. 526–527. Blackwell Science.

Netley, C. & Rovet, J. (1982) Verbal deficits in children with 47,XXY and 47,XXX karyotypes: a descriptive and experimental study. *Brain and Language*, **17**, 58–72.

Olanders, S. (1975) Other psychiatric findings. In *Females with Supernumerary X Chromosomes. A Study of 39 Psychiatric Cases*, pp. 91–104. Scandinavian University Books.

Penrose, L. S. (1966) The contribution of mental deficiency research to psychiatry. *British Journal of Psychiatry*, **112**, 747–755.

Van Rijn, S., Aleman, A., Swaab, H., et al (2006) Klinefelter's syndrome (karyotype 47,XXY) and schizophrenia-spectrum pathology. *British Journal of Psychiatry*, **189**, 459–460.

M. Otter Bennekom, The Netherlands. Email: maarten.otter@fitternet.nl
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Authors' reply: Otter claims that our finding of high levels of schizophrenia symptoms in XXY men is a rediscovery of what has been known for a long time. He supports his claim by referring to reports on triple X syndrome that were not published in peer-reviewed journals from the University of Gothenburg. We acknowledge that previous studies have also reported psychopathology in XXY men. However, we also point out that these studies have been limited in that they described men with Klinefelter's syndrome in psychiatric care or recorded hospital admissions. Our findings in a non-selected sample of XXY men, using valid and reliable dimensional measures of psychopathology, corroborate and extend the data derived from these earlier studies.

With regard to the novelty of the findings, it is interesting to note that none of the major reviews on Klinefelter's syndrome (Smyth & Bremner, 1998; Lanfranco *et al*, 2004) report a vulnerability for schizophrenia psychopathology, indicating that this is not a generally accepted feature. In addition, the aim of our study was not to provide a comprehensive review of psychopathology in X chromosomal disorders, but we find the presence of schizophrenia psychopathology in XXX females very interesting as it supports our suggestion of a link between the X chromosome and schizophrenia symptoms.

Finally, Otter argues that reduced cerebral lateralisation in Klinefelter's syndrome has been suggested by neurobiological studies but is yet to be proved. However, a recent functional neuroimaging study has also presented evidence for reduced lateralisation in brain perfusion in XXY men (Itti *et al*, 2003).

In conclusion, we feel that the evidence put forward by Otter merely underscores the importance of our findings, as both triple X and Klinefelter's syndrome have been associated with schizophrenia symptoms. Including both syndromes in genetic studies would advance the understanding of a link between the X chromosome and schizophrenia pathology.

Itti, E., Gaw Gonzalo, I. T., Boone, K. B., et al (2003) Functional neuroimaging provides evidence of anomalous cerebral laterality in adults with Klinefelter's syndrome. *Annals of Neurology*, **54**, 669–673.

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Smyth, C. M. & Bremner, W. J. (1998) Klinefelter syndrome. *Archives of Internal Medicine*, **158**, 1309–1314.

S. Van Rijn Department of Psychiatry, Rudolf Magnus Institute for Neuroscience, University Medical Centre, Utrecht, and Psychological Laboratory, Helmholtz Institute, Utrecht University, The Netherlands. Email: S.vanRijn@fss.uu.nl

A. Aleman Psychological Laboratory, Helmholtz Institute, Utrecht University and BCN NeuroImaging Centre, University of Groningen, The Netherlands

H. Swaab Department of Psychiatry, Rudolf Magnus Institute for Neuroscience, University Medical Centre, Utrecht and Department of Clinical Child and Adolescent Studies, Leiden University, The Netherlands

R. S. Kohn Department of Psychiatry, Rudolf Magnus Institute for Neuroscience, University Medical Centre Utrecht, The Netherlands
doi: [10.1192/bjp.190.5.450a](https://doi.org/10.1192/bjp.190.5.450a)