the Convention is not legally binding on UK domestic legislation but places obligations on the government to ensure its laws are compliant.[2] Complaints can be made to the UN commissioner where people with a disability feel that the Convention is not being appropriately implemented. It was not possible to determine whether any complaints had been received as a result of this definition.

In conclusion, the UK, in the sense of all three legislative areas, may receive a similar criticism to Spain from the UN Committee on the Rights of Persons with Disabilities when it reports,[3] but it remains to be seen whether this will lead to widespread change in mental health legislation.


1 Kelly BD. An end to psychiatric detention? Implications of the United Nations Convention on the Rights of Persons with Disabilities. *Br J Psychiatry* 2014; **204**: 174–5.

2 Office for Disability Issues, HM Government. *UK Initial Report on the UN Convention on the Rights of Persons with Disabilities*. Office for Disability Issues, 2011.

3 Committee on the Rights of Persons with Disabilities. *Concluding Observations of the Committee on the Rights of Persons with Disabilities: Spain*. United Nations, 2011.



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**Author's reply:** I agree with Szmukler that the 'fusion law' proposal would help shift detention criteria from the presence of mental disorder to the absence of decision-making capacity, and that a revised version of 'best interests' would be useful. In this context, it is interesting that the expert committee charged with advising the government on revising the Mental Health Act 1983 found that only a 'small minority' believed that 'a mental health act should authorise treatment in the absence of consent only for those who lack capacity' and 'if a person with a mental disorder who refused treatment was thought to pose a serious risk to others then he or she should be dealt with through the criminal justice system, not through a health provision'.[1] There was, however, 'a much larger body of opinion which was prepared to accept the overriding of a capable refusal in a health provision on grounds of public safety in certain circumstances'. Notwithstanding this matter, I broadly agree with Szmukler that the 'fusion law' proposal would help move matters in the direction of greater compliance with the UN Convention on the Rights of Persons with Disabilities (CRPD).

Bennett's letter is also very constructive. His consideration of mental health legislation in Scotland and Northern Ireland clearly indicates that neither of those jurisdictions meets some of the apparent requirements of the CRPD, and provides further support for my conclusion that there is little evidence that the UK 'is ready for such profound change'.[2] Ireland, incidentally, has recently made some progress towards greater compliance with the CRPD, with the publication of the Assisted Decision-Making (Capacity) Bill in 2013.[3] There is, nonetheless, more work to be done in Ireland, as there is in England, Wales, Scotland, Northern Ireland and elsewhere, if the robust declarations of the CRPD are to generate meaningful and realistic protections for the full range of rights of people with mental illness.


1 Expert Committee. *Review of the Mental Health Act 1983*. Department of Health, 1999.

2 Kelly BD. An end to psychiatric detention? Implications of the United Nations Convention on the Rights of Persons with Disabilities. *Br J Psychiatry* 2014; **204**; 174–5.

3 Kelly BD. The Assisted Decision-Making (Capacity) Bill 2013: content, commentary, controversy. *Ir J Med Sci* 2014. Epub ahead of print (http://dx.doi.org/10.1007/s11845-014-1096-1).



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## The significance of copy number variations in schizophrenia

Rees *et al*[1] seek to replicate the association with schizophrenia of copy number variants (CNVs) involving putative schizophrenia loci in a large case–control study. They conclude that 11 of the 15 previously implicated loci were strongly associated with schizophrenia. The odds ratios of these CNVs relative to schizophrenia range between around 2 and >50. The authors suggest that the findings now indicate a need for routine screening for CNVs.

However, I think there are grounds for reservations about the implication of these findings for the generality of cases of schizophrenia, both at the population level and in terms of public health initiatives. The authors report that one or more of the identified CNVs was present in 2.5% of the case group and in 0.9% of the control group. Let us assume that the prevalence of schizophrenia in the general population is around 0.5%, as reported in the British National Psychiatric Morbidity Surveys.[2–4] From this it is possible to calculate that, for every one person with schizophrenia who has one of these CNVs, there would be around 72 in the unaffected population. The positive predictive value (PPV) is the proportion of positive results of a test that are truly positive, and the PPV equivalent to these data can be calculated at 1.37%: in other words, this is the probability that someone with one of the identified CNVs has schizophrenia. If we change the assumed prevalence of schizophrenia to 1%, the PPV rises to 2.73%. The authors say: '[g]iven their frequency, these findings therefore suggest that routine screening for CNVs should be made available and that the results will have immediate implications for genetic counselling, and given their comorbidity with other medical disorders, for patient management as well'. However, in my view, these values for PPVs make this conclusion questionable.

It is also of interest to use the authors' data to calculate the population attributable fraction (PAF): this is the notional amount by which the prevalence of an outcome would be reduced if the particular exposure were completely removed from the population. It reflects both the frequency of the given exposure and the strength of its effect. Using these data and, as before, assuming a prevalence of 0.5%, the PAF is 0.618%. If we assume a prevalence for schizophrenia of 1%, this index changes very little, to 0.622%. This is not a large value: we found a PAF of 14% for the link between psychosis and non-consensual sexual intercourse before the age of 16,[5] whereas a meta-analysis by Varese *et al*[6] suggests that the PAF for all forms of childhood adversity in schizophrenia is 33%.

The practical implications of CNVs in schizophrenia are thus in some doubt.


1 Rees E, Walters JTR, Georgieva L, Isles AR, Chambert KD, Richards AL, et al. Analysis of copy number variations at 15 schizophrenia-associated loci. *Br J Psychiatry* 2014; **204**: 108–14.

2 Meltzer H, Gill B, Petticrew M. *The Prevalence of Psychiatric Morbidity among Adults Aged 16–64, Living in Private Households, in Great Britain*. Office of Population Censuses and Surveys, Social Surveys Division, 1994.

3 Singleton N, Bumpstead R, O'Brien M. Psychiatric morbidity among adults living in private households, 2000. TSO (The Stationery Office), 2001.

4 McManus S, Meltzer H, Brugha TS, Bebbington PE, Jenkins R (eds) *Adult Psychiatric Morbidity in England, 2007: Results of a Household Survey*. NHS Information Centre for Health and Social Care, 2009.




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