Reviewer's report

Title: Involvement in the US criminal justice system and cost implications for persons treated for schizophrenia

Version: 1 Date: 18 July 2009

Reviewer: James Bowes Kirkbride

Reviewer's report:

This is a well-written, well-conducted study which reports some important findings regarding differences between people with schizophrenia involved and not involved with the criminal justice system. It also estimates some associated costs in terms of direct and indirect health costs and costs to the criminal justice system. Providing their results are generalisable and representative of the population they are measuring (people with schizophrenia), these findings present an important addition to the literature. One of their most important findings, downplayed a little in their paper, is that a higher proportion of people with schizophrenia in their sample were the victims of crime rather than perpetrators. This is important because it helps to combat stigma, may have implications for improving the lives of people with schizophrenia (by concentrating resources on combating victimisation), and may therefore simultaneously present opportunities to reduce health and criminal justice costs associated with people with severe mental illness, by combating the reasons for victimisation (c.f. criminality). The key caveat of the paper is whether their results are representative and generalisable and this forms the focus of my most important critiques. In addition, I have stated some ways in which the paper may be improved, through greater clarity of thought (which in general is excellent) and through further analyses (which I feel could be explored further, even if these results eventually became supplemental files).

Following a PubMed search I am satisfied that the substantive findings of the paper have not previously been published.

I have ordered my review in following the structure of the paper, numbering specific requests for revisions. Major compulsory revisions are marked with an asterisk (*), minor compulsory revisions with a hash (#) and all other suggestions discretionary.

General points

1. # Throughout the paper the authors use 1,2,3,... instead of one, two three... Unless this is the journal’s style could you please alter numerals less than ten to their text equivalent. Two examples (before I gave up listing every example) are:

Page 4, 3rd paragraph: “By 1 estimate...” should be changed to “By one estimate...”
Page 6, 2nd paragraph: “Information from 2 measures…” as before

Background

The background is generally clear and states what is known and what is not known.

2. *People with a legal appraisal were not included in the study. Did they differ from included subjects? Could this have led to a bias of their results?

Methodology

3. # Well written and generally clear but the paragraph on PORT and QOLI needs to be clarified – it was unclear how the instruments differed and which instruments were being referred to in their description (second paragraph, page 6). Otherwise, the methods are clearly and adequately described.

Results

4. # Was there any change over time in the prevalence of criminal events? This is not discussed.

5. # What about lifetime criminal justice interaction? Although it would be difficult to differentiate between cause and effect of involvement in the criminal justice system on schizophrenia, did they have any way of assessing lifetime involvement (rather than involvement only in the prior 12 months)?

6. # Reporting p-values in the results would be helpful. For example, they stated that discontinuation in the study was significantly different between the two groups, though this fell just outside of conventional statistical significance.

7. *Findings differed by age, which when adjusted for (with sex and ethnicity), led to the non-significance of most of their findings (save for physical health differences between the two groups). This would imply that age was an important predictor of involvement in the criminal justice system. This could be expounded upon in the paper. Some presentation of the adjusted results (from logistic regression), at least in the text, would help the reader get an idea of the confidence around these estimates. At present findings are reported as non-significant (last 4 lines of page 8) but no data are presented.

8. *The authors/editor should check whether the small numbers presented in Table 2 present any ethical issues surrounding disclosure.

9. *Table 2 should be re-ordered into three sections a) Crime against the subject, b) Crime resulting in arrest, c) crime not resulting in arrest. Within these subheadings, individual types of crime should be listed in descending order of prevalence. The main finding of the table (victim of crime) would therefore be first in the list, rather than at the bottom of the table.
10. *It would be interesting to repeat their analysis on people who were victims of crime to see whether the correlations discussed in the first section of the results remained the same or differed for this group (i.e. victims of crime versus perpetrators vs. no criminal involvement, with thought as to how to categorise people who were both victims and perpetrators).*

**Discussion**

In general the discussion presents a balanced portrayal of their study in the context of others. I am unfamiliar with the literature in this field but it appears balanced with a good cross-section of key references.

11. Care is needed on page 11 of the discussion (1st paragraph) which discusses how people with involvement in the criminal justice system differ from those who don’t – the univariate associations they report are all confounded by age. How much does this matter?

12. *One of the central findings of the study – that people with schizophrenia in their sample were more likely to be the victims of crime than to commit crime should be more prominent in their discussion as it helps to tackle the stigma surrounding this issue. They should also state this at the start of their conclusion.*

13. *The discussion needs to include more careful thought about the possible sources of bias their methodology may have led to in terms the representativeness of their sample to people with schizophrenia more generally. The authors should give more details of the proportion of subjects who agreed to take part in the original study in comparison to the proportion that refused. Presumably, those who refused may have differed in important ways to those included, including possible differences in experiences of criminal justice experience. Is it possible the study underestimate such experiences because of this? Is it possible to ascertain whether such biases were present?*

14. *Almost 6.5% of subjects in their initial sample were excluded because of some missing PORT data. Could these subjects have differed in important ways from those included? Here, the authors could inspect differences on a variety of other measures and report them in the paper. This would help give context to their results and allow the reader to determine possible bias in their sample. Could the excluded subjects have been handled differently? If they were only missing some PORT data could this have been entered via imputation or a sensitivity analysis? If not, the authors might state the reasons for excluding these subjects.*

**Acknowledgements**

15. # Could the authors expand upon the role Eli Lilly had in the study design and analysis of the data. Were the authors able to publish their findings freely, without censorship of potentially important data?

Thank you for giving me the opportunity to review your work. I hope the
suggestions I have made will serve to improve the quality and impact of your manuscript. Good luck.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests