Reviewer's report

Title: Non-specific psychological distress, smoking status and smoking cessation: United States National Health Interview Survey 2005

Version: 1 Date: 15 January 2011

Reviewer: Anthony Jorm

Reviewer's report:

- Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)
  1. Page 11 reports linear associations, but Table 3 appears to show some non-linearity as well. In particular, there is a drop from the K6 8-12 group to the K6 13-24 group. This needs to be tested.

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
  1. On p. 3, the sentence beginning “There is a strong association…” gives the rate of mental disorders in adults who smoke. However, it needs to be followed by the comparison rate in non-smokers.
  2. On p. 5, the sentence beginning “While this scale…” does not make sense. The use of “while” seems to imply that the second clause is an exception to the first.
  3. On p. 5, the sentence beginning “As some have argued…” is awkward and needs rephrasing.
  4. On p. 8, it is not stated what the time base of the CIDI diagnoses was (1 month, 12 month, lifetime?). This also needs to be made clear in Table 1.
  5. On p. 9, “chi-squared” should be “chi-square”.
  6. Page 12 refers to “High levels… were… associated”. I think “Higher” would be more appropriate, because on the following page it is stated that even moderate levels had an effect.
  7. Last line of p. 17: “lead” should be “led”.
  8. In Table 5, “months” needs to be added after “7-24”.
  9. In Table 5, the line of numbers alongside “Family income” needs to be on the next line with “Under $20,000”.
  10. In Figure 2, “Years since onset” would be clearer as an axis label than “years”.

- Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)
  1. On p. 4, the null hypotheses would be clearer for the reader if phrased as aims
of the study.

2. The K6 only asks about distress in the past month, but the authors argue that high scorers tend to have long-term mental health problems. This raises the issue of whether the personality trait of neuroticism might be a better predictor of smoking than current distress. There is a literature on neuroticism as a correlate of smoking that could to be mentioned.

3. The paper mainly uses the term “psychological distress”, but occasionally uses “mental health distress”. The use of different terms for the same construct only causes confusion. The latter term should be removed.

Level of interest: An article of importance in its field

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'