Reviewer’s report

Title: Could a brief assessment of negative emotions and self-esteem be used to screen for current and future risk of self-harm in adolescents in the community? A prospective cohort analysis.

Version: 2 Date: 12 March 2013

Reviewer: Katherine Bevans

Reviewer’s report:

Thank you for the opportunity to review “Could a brief assessment of negative emotions and self-esteem be used to screen for current and future risk of self-harm in adolescents in the community?” This paper has many strengths, most notably the thorough use of sophisticated psychometric procedures to develop and test a self-harm screening tool. As a reader, I very much appreciated the clarity of the writing and the authors’ detailed description of their approach. That said, I have tried to identify some ways in which I believe the manuscript could be improved.

Major compulsory revisions:

As the authors noted, self-injury is a poorly understood and highly stigmatized phenomenon, especially when it is done without suicidal intent. I think the readers would benefit from a brief (1 paragraph) review of current research findings related to the etiology and manifestation of self-injury. How do adolescents injury themselves? For what purpose?

The authors cite prior research on the associations between mental health symptoms (depressed mood, anxiety, low self-esteem, self-failure cognitions) and self-injury. Given this seemingly robust literature, I am somewhat concerned that the present findings fail to provide new information. The development of a screening tool is somewhat novel, but to be useful to the reader, the screening instrument should be freely and publically available for readers’ use. Since items were derived from other instruments, do copyright or licensing agreements prevent readers from using the items in the manner described in the paper?

There are differences in the demographic characteristics and symptom expression of youth who dropped out of the study and those who provided all three data points. As you noted in your limitations section, these differences may bias study results through the under-representation of youth with the most severe problems. Consider using a propensity matching procedure (at baseline) to reduce the impact of non-random missingness.

Gender differences in associations between symptoms and self-harm are notable. Given these differences, perhaps personal failure and physical symptom screening would be more useful for boys; whereas self-esteem screening would be more useful for girls. Please rationalize the creation of a total score, which
may result in the loss of pertinent information about gender differences in the identification of youth at risk for self-harm.

Please add descriptive information for the total scale (to Table 2). The meaningfulness of suggested cut-off scores is difficult to interpret without the total scale descriptive statistics. Also, please consider adding information about the percentage of adolescents who meet the cut-offs presented in Table 4. Given the low level of symptom expression in this sample, I am concerned that the screening tool identifies a very small number of participants, which may undermine the stability of ROC analyses.

Discretionary revisions:

Removal of infrequently endorsed items (<15%) may improve the internal consistency of scales, but may also reduce the scales’ capacity to quantify symptoms among adolescents with the most significant problems. Have you retained items that measure the full range of symptoms as they are expressed by your sample? The classical test theory methods you’ve applied assume that test reliability is the same across all levels of the measures latent constructs. A combined classical and modern (e.g., item response theory) approach may be more useful.

The odds ratios presented in Table 3 show clear associations between symptoms and current/future self harm behaviors. But, they suggest that there are a critical number of adolescents who experience psychological symptoms, but are NOT engaging in self-injury. Who are these adolescents? Does your dataset contain any other information that could be used to differentiate symptomatic youth who engage in self-injury from those who do not? If no such data exist, perhaps suggest these more refined analyses in the discussion (as possible areas for future work).

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests