Author's response to reviews


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Author's response to reviews: see over
Dear Dr van Straten,

Thank you very much for the reviews of our manuscript ‘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’ (MS 1071185578958981).

We have addressed the reviewers’ comments as requested and I have included a point-by-point response to each comment below. I have also ensured that the manuscript conforms to the journal style and have re-formatted the tables accordingly.

As part of the process of addressing the reviewers’ comments, we have amended the manuscript title, which is now:


Many thanks for considering our revised manuscript,

Kind regards,

Rhiannon

Reviewer 1:

1. We are grateful for the reviewer’s comments relating to the strengths of the study in terms of size and retention rates at follow-up.

2. We have carefully considered the reviewer’s comments relating to (a) the potential usefulness of this approach and (b) our not having tested this as a complete new measure.
   a. We remain confident that this approach of assessing negative emotions to help identify those at risk of self-harm is more acceptable in community settings, where the majority of young people are at low risk and asking sensitive questions about self-harm is difficult (even following training). Furthermore, our results suggest that our approach provides a potential means of identifying those at future risk (over the following year), i.e. it identifies those who are showing signs of psychological distress but are not as yet engaging in self-harm. We have attempted to provide further details in the discussion by adding the following paragraph to the ‘Implications’ section:

   “Our analysis indicates that a tailored assessment of negative thoughts and emotions can provide a potentially reliable, sensitive and specific indicator of who is at risk of self-harm, which could be a convenient and acceptable way of helping to identify those who are at risk in community settings. This is a method worth exploring further given the problems around acceptability of asking directly about self-harm [24-27], and lack of specificity of more general
measures of depression or anxiety [56]. Although 14 items remained in our final analysis to identify those at risk of self-harm (which would constitute a longer assessment than asking just one direct question about self-harm), this reduced set of items offers a quick, brief assessment of negative emotions that are strongly associated with self-harm” (p. 16, paragraph 2).

b. We appreciate the comments that the issue of not having tested this as a complete measure has been adequately addressed in the discussion. Nonetheless, we have attempted to clarify in the manuscript that this analysis is a research pointer for a potentially fruitful area for future research. We further discuss this in response to Reviewer 2’s query in relation to copyright issues.

3. We have corrected the typo at the end of the introduction (p. 5, paragraph 3).

4. We have revised the statement relating to consent to clarify this process as follows:
   “Participation required written consent from the school head teacher, parental consent on an opt-out basis, and written assent from the adolescent” (p.6, paragraph 3).

5. The questionnaires were completed anonymously. We have amended the relevant sentence in the Design section to confirm this:
   “Self-report questionnaires were completed anonymously at school in sessions led by the research team” (p.6, paragraph 1).

6. We have added a statement to the ‘Setting and participants’ section of the methods to confirm that:
   “A safety procedure was in place to inform young people and their parents by letter to their home address if they scored highly on the primary outcome measure for the trial (symptoms of depression assessed by the Short Form-Mood and Feelings Questionnaire) in order to signpost them to relevant services should they wish to seek support/advice. All young people were given a printed list of sources of support should they have any concerns during each assessment session. There was also a written adverse events procedure approved by the Data Monitoring and Ethics Committee (DMEC) in place as part of the trial” (p.6, paragraph 3).

7. We have provided further information in the Methods section on the self-harm measures used, and have provided a reference to a previous analysis of self-harm based on the ALSPAC data (Kidger et al. 2012, see p.7, paragraph 1).

Reviewer 2

1. We thank the reviewer for their positive comments relating to the thoroughness of the psychometric procedures.
2. We have added a paragraph in the introduction to provide a brief overview of the aetiology and motivations for self-harm in adolescents in the community:

"Self-harm is referred to in several ways in the literature, including ‘self-mutilation’, ‘non-suicidal self-injury’ (NSSI), ‘self-injurious behavior’, ‘parasuicide’, ‘self-wounding’, or ‘self-poisoning’ [10]. The most common methods of self-harm reported in community settings are self-cutting (or self-laceration) and self-battery (e.g. head-butting a wall or pulling hair) [10-12]. Self-poisoning (or overdose) is less common in the community, but is strongly associated with the presence of suicidal intent [11] and is the most common method in those presenting to hospital following self-harm [13]. Self-poisoning is more common in girls than in boys, who more frequently report self-battery as a method of self-harm [11, 12]. Motivations commonly reported for self-harm include: coping with negative emotions; self-loathing; anger; self-punishment; loneliness; distraction from problems, and; to communicate bad feelings to others [11, 12]. Girls are more likely to report reducing negative emotions as a motivator, while boys have a greater tendency to report more superficial reasons like boredom or curiosity [11, 12]. Almost half of young people report feeling better after self-harming and this is most common in those who self-harmer frequently [11]. However, feelings of guilt, shame, and disgust can also increase following self-harm [12]." (p. 3, paragraph 2).

3. We are grateful to the reviewer for highlighting potential copyright issues. The manuscript is based on analysis of the psychometric properties of the questionnaires used in their original format, with all of the measures being freely available and in the public domain, so this is not an issue for the current analysis. Nonetheless, if these items were to be used routinely as a ‘new’ measure, relevant permissions would be required from the copyright holders and we have now explicitly stated this in the Discussion section (p.17, paragraph 2).

As highlighted by reviewer 1, the ‘new’ measure would need to be tested for validity and reliability in future research before it could be widely used, and so we view the current manuscript as providing useful information on the use of a targeted measure of negative emotions and thoughts that are particularly strongly associated with self-harm, and highlight the level of specificity and sensitivity one could expect in using such an assessment, both for current risk and future risk (over the following year) of self-harm. It is therefore a useful pointer for future research, but does not as yet provide a clinical tool that is ready for wide use. We have now modified the relevant sections of the Introduction and Discussion to clarify this, and have adjusted the manuscript of the title to emphasise that we are investigating this as a potential method of identifying those at risk of self-harm rather than developing a bespoke screening tool per se at this stage.

4. In relation to the issue of what this study adds to the literature, although there is robust evidence of an association between negative emotions, self-esteem, and self-harm, measures in their current form may lack discriminative ability in distinguishing between those who do and do not self-harm. We have attempted to clarify this in the Introduction and have added a relevant reference (Ross & Health, 2002, see p.5, paragraph 3).
5. We have considered the issue of differences between those who were lost to follow up or provided full data at all three time points. Propensity matching procedures are most applicable to randomized studies to allow an unbiased assessment of treatment effects. However, they are less useful for observational studies where the participants are by definition not randomised. We also considered the use of imputation methods, but White et al (2011) suggest that there may be little benefit to imputing data for individuals who lack outcome data because their inclusion in a regression model may add noise but little else of value (White IR, Royston P, Wood AM: Multiple imputation using chained equations: Issues and guidance for practice. Stat Med 2011, 30:377–399 doi:10.1002/sim.4067.). Further, in the study describing analysis from the ALSPAC study (on which our self-harm items were based), using two different methods of imputation and raw data made little difference to the findings of the regression models and did not alter the conclusions (Kidger et al. 2012). Therefore, we feel confident that our approach of describing the differences and noting these in the study limitations is appropriate in this case.

6. We have provided an additional file (Additional File 1) giving the AUC, sensitivity and specificity at the recommended cut-off points for the individual factors by gender for information and we refer to this in the final paragraph of the Results section (p. 14, paragraph 1). Although there were gender differences evident, the overall score provided greater overall accuracy in identifying those who reported self-harm for both girls and boys, which is why our manuscript focuses on the use of the total score.

7. We have added descriptive information relating to the total scale to Table 2 (p.28) as requested.

8. We have added the % of adolescents above cut-off to Table 4 (p.30) as suggested.

9. (Discretionary revision). The items removed under the <15% criteria were typically very infrequently endorsed, which significantly skewed the distribution on these items. As part of the item selection process, we ensured that the remaining items had the greatest level of variance to ensure sufficient variation in responses was retained (see p.10, paragraph 2). The regression and ROC analysis confirmed that the remaining items in the reduced factors were strongly associated with self-harm, and consequently had good accuracy in identifying those who reported self-harm, and therefore we remain confident that our approach to the psychometric analysis was appropriate and robust.

10. (Discretionary revision). With regards to the question of which adolescents are reporting psychological distress but not engaging in self-harm, other data, relating to possible correlates of self-harm (such as the school context and other risky behaviours) have been included in a separate manuscript which is currently under review.