Predicting repeated non-attendance: Response to Smits & ter Riet

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We agree with Smits & ter Riet when they suggest that it could be valuable to frame questions relating to non-attendance in terms of societal benefits and harms[1]. However, we would like to take this opportunity to provide some additional clarification with regards to our analysis and presentation of results[2].

Smits & ter Riet argue that we should have included information on medical diagnoses rather than provide this analysis in a future publication: our decision to incorporate these into a future publication was not taken lightly. These issues were raised during the review process, with one reviewer suggesting that the burden of long-term conditions is likely to be an important factor in unmet need and behaviours of the patients within this population[3]. However, we judged that presenting these data satisfactorily in a single paper would be overly complex. Other reviewers supported this decision. In addition to a paper that will focus specifically on patients with multiple long-term conditions, we also plan to publish a future overarching paper focussed on unmet need along with health care utilisation across the health system.

Smits & ter Riet also suggested that our analysis might benefit from a multilevel approach that would involve the use of zero-inflated negative binomial models. Such an approach might be particularly useful given that 54% of patients did not miss any appointments. We considered that the negative binomial models fitted the data reasonably well. An initial analysis attempted to use a mixed effects regression allowing for random practice effects, but even the simplest of models proved intractable in a dataset of this size, which was held in a Safe Haven environment with limited computational capacity. To counter this, we adjusted the analysis for available practice level variables.

The focus of our paper was on describing the data, and the main effects of a number of patient and practice-level factors. To examine cross-factor interactions would have added another layer of complexity that would have been very difficult to condense into a single paper. Such analyses would probably best be focused on interactions between a single factor (e.g. sex) and each other factor, in order to address a coherent research question.

Finally, we agree that frequent attenders are indeed an interesting sub-group within themselves and this is why all our models were offset for the number of appointments made[2]. However, the claim that frequent attendance would prompt more changes to clinical work than non-attendance is unfounded. While these groups are qualitatively different in terms of social and socioeconomic problems, they provide two equally important examples of unmet need.[2, 4-5]

References

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