Reviewer's report

Title: Specialist palliative care support is associated with improved pain relief at home during the last 3 months of life in patients with advanced disease: analysis of 5-year data from the national survey of bereaved people (VOICES)

Version: 0 Date: 08 Oct 2018

Reviewer: Katherine Sleeman

Reviewer's report:

Thank you for asking me to review this paper. The authors have used data from the VOICES survey, a nationally representative post bereavement survey, to investigate the association between receipt of palliative care and pain relief. It's a useful addition to the literature. My comments are mainly points of clarity, though I do think an additional sensitivity analysis would be useful.

Methods

It is unclear in the methods section where the data came from. I assume the authors had access to individual level data for this study, rather than aggregate data. It would be useful to clarify this in the methods for ease of reading.

Exclusion criteria - Please justify exclusion of people who did not have any pain - could this be because they were very well palliated? I think it would be useful to include this group as a sensitivity analysis.

Exclusion criteria - please justify exclusion of people who did not spend time at home in last 3 months. Presumably most of this cohort lived in care homes - would hypotheses about pain relief and palliative care not hold for care home residents?

Please clarify timescale for 'receiving palliative care at home' - was this for duration of last 3 months?

The 'advance care planning' variable seems to encompass only having a preference for place of death recorded, which is a little misleading. Suggest re-name as 'preference for PPD recorded'.

Analysis - Multivariable model - clarity needed on how model was built - I am assuming that variables were included in forced manner? Rather than stepwise?
Results

The sentence beginning 'All characteristics remained in the multivariable model…' does not make sense grammatically.

Line 204 (3%) - can't interpret Odds Ratios as % increase, especially when outcome is common (as it is in this study). Needs rewording.

Line 212/213 - Good pain relief was more likely in least deprived areas? This is not what the results of the MV model show.

Table 4 - big swing in ORs for age from unadjusted to multivariate analyses - how interpret?

Discussion

First 2 sentences do not relate to aims or main analysis. Suggest re-write. Also advance/advanced spelling error.

More discussion of why 'ACP' variable might be associated with better pain outcomes needed - does not seem logical that discussing PPD would be causally associated with better pain, as suggested in first para.

Discussion of association with who filled in the survey (child or spouse) would be useful addition to discussion.

Line 259, would be useful to give suggestions of additional confounders not measured.

General

Occasional confusion of 'advanced' and 'advance' (see abstract, discussion). Misspelling 'relived'.

The thread from aims to methods to results and discussion feels a little disjointed - eg see comment about discussion first para.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Not applicable

Are the conclusions drawn adequately supported by the data shown?
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Yes

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