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Title	Comprehensive hospice palliative care delivery and impact on end-of-life care: a propensity score matched retrospective observational study
Authors	Michael S.C. Conlon PhD, Joseph M. Caswell PhD, Andrew Knight MD, Barbara Ballantyne MScN, Stacey A. Santi PhD, Margaret L. Meigs MA, Craig C. Earle, MD, Mark Hartman MBA
Reviewer 1	Emily McDonald
Institution	McGill University, Internal Medicine, Montréal, Que.
General comments (author response in bold)	Thank you for the opportunity to review your article.

Regarding the abstract:
Consider changing the wording of this sentence FROM: facilitate death outside of an acute care hospital TO: allow for death to occur outside of an acute care hospital.
We have made this change in the Abstract (page 2, line 40).

Could these results be presented in a way that is more intuitive for the reader? (ARR 12.73, 95% CI 12.65-12.81 for "any") and death in an acute care setting (ARR 19.89, 95% CI 19.78-20.00). Satisfaction with care received within SMP was high (total score 85.72 +/- 11.11).

We have added additional clarification to these findings in the Abstract (page 2, lines 55-57) as well as in the body of the text (please see the Interpretation section, lines 184-200)

Suggestions: Calculate a "number needed to treat"
Mention what the range maximum range of the score is (is 100 the highest score?)

As suggested, we have calculated and reported on the number needed to treat and include the maximum range of the score for the FAMCARE (please see Abstract, page 2, line 57 and Table 2, page 15).

Regarding the methods:
Could you describe in a short paragraph what the SMP provides? And how are referrals made? ie why would some patients be referred and others not? I think this is important, because even if you match patients on all of their co-morbidities via propensity matching, we have to consider that not all patients or families want to be enrolled in such a program (there are most likely unmeasured biases). Patients who enrolled in the program were possibly self-selected and it's not surprising that they were very satisfied. It's not a bad thing, I think it's a great program, but this should be discussed.

We have added this information. Please see the Response to Item 2 (above). Also, we have added a short paragraph regarding the referral process and eligibility criteria to our manuscript-Methods section (Design and Setting subheading; pages 3-4, lines 91-93). We have also attached a brochure as an online appendix (Appendix C, page 23).

Regarding the FAMCARE questionnaire:
Oh- only 20 family members completed the questionnaire? That is a very small subset, but it is really played up in the abstract: In addition, a sample of family caregivers of SMP decedents completed the 20 item FAMCARE questionnaire 12 3 months following decedent death as part of a program evaluation that measured perceived quality of care and satisfaction with advanced cancer care delivery. I think it needs to be specified in the abstract that only 20 families completed the questionnaire (or remove it from the |

abstract/or designate it as a "small subset" etc...)

For clarification, 96 family members completed the questionnaire. The FAMCARE questionnaire that we used was 20-items in total (please see Table 3 (page 14, Lines 322-323)). We apologize for the confusion. Prior to propensity matching and linking our data, n=131 FAMCARE questionnaire surveys were available. After propensity matching, n=96 FAMCARE questionnaires were used for the completed analysis. We estimate a response of approximately 42% and provide this information. Please see the response to 6e and 8 above.

For the co-variables will need to discuss the limitation of not having available the type of cancer, the time since diagnosis, other factors such as ECOG, and time since diagnosis etc. ... (I see some of these are mentioned in the limitations).

I think number needed to treat should be reported as 5 (and not 5.03)

We have made this change to Table 2 and report NNT as 5 (Please see Table 2, page 15).

Regarding the interpretation: I eluded to this before, but it's not exactly that patients enrolled in the SMP were protected. IE if you randomized people to enrolment or not, you might not have the same findings. Amongst patients and their families who were amendable to being enrolled in such a program and who had physicians who referred them, you demonstrated a protective outcome. It's a bit nuanced, but important to mention (in my opinion).

Could you venture a guess as to how the SMP accomplishes what it does? Others may want to know a bit about the program (or a reference to a document that describes it?)

Please see the Response to Item 2 and 6 (above).

Any sense of the cost of implementing such a program/participant vs. the cost savings? You may not have this information, but I think it needs to be mentioned that we would have to calculated this in order to decide to implement such programs more broadly. You could mention this in the conclusion (you touch on it a bit superficially).

Maybe just temper the language in the conclusion about caregiver satisfaction- it "may" be associated with high family satisfaction (because it really is quite a small subset, but it does seem to suggest that people like the program- and they probably do.)

We have tempered the language about caregiver satisfaction, removed "high" from that sentence in the conclusion (page 10, Line 242), as suggested, as well as in the Abstract. While the delivery of hospice palliative care was associated with family satisfaction with care in our study, we acknowledge that after matching, the overall sample size (n=96) is a smaller subset.

Reviewer 2	James Downar
Institution	University of Toronto, Medicine, Toronto, Ont.
General comments (author response in bold)	Thanks for inviting me to review this manuscript. The standard caveats apply when discussing observational studies, even those with propensity matching. 1. Even missing one variable can be enough to confound the analysis, and there were some important factors missing from the model (e.g. stage of cancer). This limitation of propensity matching should be acknowledged in the discussion (NB the authors did

acknowledge that the missing data made it harder to describe the cohort but that is only half of the problem).

Yes, we agree. We acknowledge and discuss that important variables were not available, and provide a comparison to provincial level estimates defined using a decedent cancer cohort definition.

2. The groups should not be compared using words such as "decreased" or "reduced" because there was no prospective intervention and these were two separate populations being compared. These should be replaced with terms such as "associated with a lower..." etc.

We agree, and have replaced decreased or reduced with associated with lower.... etc. as suggested. Please see wording changes in the Abstract (page 2, lines 60-62), Results (page 6-7), and Interpretation section; pages 7-8).

3. The absolute reduction in aggressive care outcomes was somewhat small, but this was likely due to a "floor effect" for most variables, since the numbers were too low to begin with.
Thank you for the comment.

4. I was surprised to see such a large signal in the acute care death outcome, given that Sudbury is relatively remote and community resources/hospice beds relatively poor. The use of acute care at EOL for many people living in such circumstances is not voluntary but rather a default because there are no other options. This is nice to see.

Thank you for the comment.

5. Do the authors have any data about actual location of death- home? hospice? It is good to know that they are getting less aggressive care but that does not equate perfectly to good palliative care.

We did not have the information available for this study, but agree that it would be important to know.

6. The FAMCARE scores are very high, and it is surprising to see them high regardless of EOL care in the ICU etc. Something of a confounder.

We have added literature support related to the satisfaction scores in our study compared to others. Please see the Interpretation section, page 8; lines 202-205.