Reviewer’s report

Title: Impact of pharmacist-led medication management in care transitions

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Reviewer: Terri Warholak

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Research article

Impact of pharmacist-led medication management in care transitions

BMC Health Services Research

General: I think this this is an interesting, well-done study. I am particularly impressed that a control group was utilized. There are some items that I think need to be fixed (as outlined below) but most of these should be fairly simple to perform.

Throughout

* Spell out every abbreviation the first time it is used.

Abstract

* The abstract is the least well-written portion of this paper. It suffers from many grammatical errors and is unclear because of the language. Having someone for whom English is a first language edit before resubmission would be valuable.

* Some information is missing from the abstract such as tests done and the a-priori alpha level.

Introduction

* Objective
Since this is not a randomized controlled trial there are still threats to internal validity (as the authors rightly point out later). However, because of this, I feel as if the objective might be better if it read "is associated with a reduction in 30-day readmission" rather than "can reduce."

Methods

* I think I can guess why medical patients were targeted for this intervention - but it would be helpful if the authors would state so any ambiguity could be avoided.

* It is difficult for the reader to discern how the control group was selected. Later on in the Discussion section, it is stated that the control group patients were discharged the month before the treatment group patients - but this should be stated in the Methods along with additional details (i.e., were all patients who met the inclusion criteria included?).

* Risk Assessment

  o How were the two senior pharmacists selected?

  o What were their qualifications?

  o Did they rate severity independently? If so, what process was used to reach consensus in the case of disagreement?

Results

* Type and number of pharmacist interventions

  o There should be a standard deviation reported anywhere a mean is reported.

Discussion

* On line 37 of the first full page of Discussion, it is stated that TFU had a higher rate of readmission but this was not significant. I believe that since there is no statistical difference then there is no difference and the first part of this sentence should be deleted.

* On line 9 of page 14 it is stated that pharmacist intervention helped avoid 40% of extreme risks. I do not understand this statement. Were 40% of the issues identified categorized as extreme? Do we know how many were not caught? Therefore, I feel this sentence needs to be rephrased and clarified.
* There are several places in the Discussion on page 14 where statements are made that indicate that there is an association (page 14: line 17- between age and higher risk; line 34- a difference in call times of the 2 calls). However, I do not think these statements can be made as such without doing statistical tests and reporting the p values. I think this is really easy to fix and would help avoid criticism. Of course, these additional items would need to be added to the Methods and Results sections.

* On page 15, it is mentioned that more than half of the changes related to discontinuation of drugs. I find this interesting and request that some qualitative information be added. For example, what was discontinued and why?

* On page 15, line 27, it is states that their might be difference in the treatment and control group characteristics. I agree. I would have liked it if the control group characteristics reported in Table 1 (which I think is mislabeled as Table 2 because there are 2 Table 2s) along side the treatment group characteristics. Statistical tests can then be done to determine if there are, in fact, differences. There may not be.

* On page 15 - line 44 it is stated that there may be differences between pharmacists - and this might be true - but you can circumvent this criticism somewhat if you add information to the Methods section that outlines the training as well as any other steps that were taken to ensure inter-pharmacist reliability.

Table 1
* A key should be added that explains all abbreviations

Table 2
* A key should be added that explains all abbreviations
* When means are reported standard deviations should be reported as well
  o Also add a p value to indicate if there was a difference

Table 3
* A key should be added that explains all abbreviations
Table 5

* When means are reported standard deviations should be reported as well

o Also add a p value to indicate if there was a difference

**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.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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