Author’s response to reviews

Title: Patients' perceptions of interactions with hospital staff are associated with hospital readmissions: A national survey of 4535 hospitals

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(The authors' response letter has been included as a supplementary file)

Reviewer reports:

Michael Shwartz (Reviewer 1): No further comments.
Response: Thanks for the acceptance.
Suzanne Fredericks (Reviewer 2): (None)

Gregor Stiglic (Reviewer 3):

Comments: Hospital readmissions are recently a widely researched topic and represent an important to obtain an insight into the measurable variables that could be related to hospital readmissions.

In this study, authors observe the patient's perceptions of the responsiveness of the hospital staff and communication and build multivariate regression models to predict 30-day readmission rates at the hospital level in the US hospitals.

Since we know that re-admission rates change over time, especially after the introduction of The Readmission Reductions Program by CMS, it would be interesting to see the predictive value of patient's experience on readmission rates. Authors should at least discuss about the technical possibilities to build predictive instead of only cross-sectional descriptive models. It would also make sense to include additional variables included in the Hospital Compare.
Response: We agree that readmission rates change as a result of the Readmission Reductions Program by CMS. Such a change can be shaped by various factors, including those that occur before and after hospital discharge. It is important to note that patients’ experience is a direct indicator of the quality of hospital care. Patients’ experience in hospitals can also impose a profound impact on their post-discharge care. This is simply because discharged patients need to follow a discharge plan developed by their hospital doctors and nurses. Further studies should adopt a longitudinal design to determine the predictive value of patients’ experience on readmission rates. The Hospital Compare should also include additional variables. We have added these in the discussion section of the manuscript (Page 15 line 7-14).

Comments: The three questions used in the study are not the only questions related to patient's perceptions of communication. It should be explained why for example questions on "Communication about medicine", "Discharge information" or "Care transition" were not included in this study. Furthermore, these are "composite topics" represented by multiple questions where it would be possible to study the relations even further. For example, staff responsiveness was derived from two questions - what is their correlation to readmission rates?

Response: We chose three indicators that are more likely to capture the response of doctors/nurses to patients’ requests. Other indicators such as “communication about medicine”, “discharge information” or “care transition” were excluded in data analyses because they are more likely to be initiated by doctors/nurses rather than patients.

In the Hospital Compare, responsiveness was measured by multiple questions. However, they did not publish the underlying information from which the composite scores were constructed. Due to limited details of relevant variables, we were not able to perform further analyses on the correlation between composite scores of responsiveness and readmission rates. This has been discussed in the “limitation section” of the manuscript (Page 16 line 17-20).

Comments: Additionally, analysis of summary data only presents a serious limitation of this study as it does not allow stratification of patients into at least age groups and/or gender groups.

Response: We have added the following limitations in the discussion section (Page 16 line 20-21):

The available data did not allow us to perform subgroup (e.g. age and gender) analyses. However, the patient perception indicators were adjusted for differences in age and gender.
Marsha Regenstein (Reviewer 4):

Comments: I enjoyed reading the paper. The revisions made by the authors improve the paper quite a bit. I noticed a few times in the text where additional editing is necessary but the paper reads mostly quite well.

Response: Thanks. We have reviewed and edited the manuscript.

Comments: I agree with some comments from the previous reviewers about what we can take away from the findings. I think the results stand on their own -- the fact is that HCAHPS is commonly used and it's not clear theoretically or conceptually what the underlying link is between the measures and health care utilization or patient outcomes. The authors take a stab at explaining the findings in the context of hospital care and possible connections to readmission rates. The discussion makes sense but it leaves the reader somewhat unsatisfied -- though I don't think this is the fault of the authors or the analysis. Why wouldn't communication between patients and nurses/physicians be associated with better or worse readmission rates? Would the findings be essentially the same if the analysis looked at the lowest, and not the highest, box?

Response: We found that neither communication with physicians nor communication with nurses was significantly associated with hospital readmissions. Unfortunately, our data does not allow us to explain this finding. We have added some discussions about the factors that may shape the outcomes of patient care and their possible connections to readmission rates (see our response to Reviewer 3).

We used the indicators with the “highest box” in data analyses because of two reasons. First, they make sense to managers according to the principles of continuing quality improvement. It would be unacceptable to have patient feedback of the “lowest box” regardless whether it is associated with readmission rates. The “lowest box” by itself is solid evidence of poor quality of care. Second, the online report card does not show results of the “lowest box”. The hypothesis that the lowest box might be associated with readmission is interesting and we appreciate the suggestion. Unfortunately, these data are not available and we cannot explore this hypothesis.

Comments: In general, though, this is an interesting article that is well done and clear and will add to the literature on hospital readmissions and potential areas for targeted improvement efforts.

Response: Thanks for the encouragements.