Reviewer's report

Title: The structure of quality systems is important to the process and outcome. An empirical study of 386 hospital departments in Sweden.

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Reviewer: Paul P Shekelle

Reviewer's report:

This paper presents the results of a survey of a large number of Swedish hospitals about their quality improvement activities. The authors structured the survey to resemble Donabedian's structure-process-outcome model of quality. In this case, the structure of QI activities are the available time and money and administrative support, the process is the culture and cooperation, and the outcome is evaluations of goal achievement and development of competence. The authors received back a respectable 75% of the surveys they sent out, and using factor analysis and multivariable regression modeling to assess the relationship between scores on the 3 domains in their model. They report that structure was highly correlated with both process and with outcome, and process was modestly but significantly correlated with outcome. The authors conclude that their results may increase the chance of effective and efficient use of resources.

I read this paper with interest. It is a novel approach to trying to provide empirical evidence about how to best structure QI efforts. While in one sense the results are no surprise - one need to put in sufficient resources if one expects any concrete results - it is still nice to see this empirically demonstrated. I have only a few comments:

First is that this needs a statistical review by someone skilled in the methods they used. I am not that person.

Second, the typology presented in the background is not something that I think is universally accepted and I would suggest simply saying that QI efforts can go under a lot of different names like CQI and TQM and balanced scorecard etc, and that for this paper we've defined quality systems as .

Third, I think the authors need to acknowledge that the head of department may not be the best person to answer questions like "Do the clinic's employees and managers have time to work with quality improvement?" and "In general, is it easy to get support from the clinic's managers when trying to implement new organizational improvements?" I'm pretty sure that the head of my department would answer these things somewhat to a lot differently than those of us actually working in the clinic!

Fourth, I would suggest moving the paragraph in the methods about the possibility of bias resulting from the non-responders from the methods section to the discussion section. This is normally where I see this presented.

Fifth, I think the authors need to state in the discussion that there is no demonstrated link between their "outcome" and the outcome that usually matters most to patients - better health outcomes.

Sixth, the authors may want to consider pushing the conclusions a bit further - would it be incorrect to conclude that organizations that say they have a quality system but are not devoting adequate resources to it are fooling themselves? Of that if organizations want to improve the quality of their care then they need to devote sufficient resources to their quality systems in order to achieve substantial results?

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests