PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Shared Decision Making as a Cost-Containment Strategy: U.S. Physician Reactions From a Cross-Sectional Survey
AUTHORS	Tilburt, Jon; Wynia, Matthew; Montori, Victor; Thorsteinsdottir, Bjorg; Egginton, Jason; Sheeler, Robert; Liebow, Mark; James, Katherine ; Goold, Susan

VERSION 1 - REVIEW

REVIEWER	Mary Politi Washington University in St. Louis, USA
REVIEW RETURNED	03-Oct-2013

GENERAL COMMENTS	a. In general, I think the methods section could use some clarification. For example, I would like to know some more details about the development of the measure. Can you clarify how many focus groups were conducted, how many cognitive interviews were done, and what existing measures you adapted? (p. 5 starting at line 12, survey instrument). b. Also, you mention that one of your outcomes was degree of agreement with the statement ""Decision support tools that show costs would be helpful in my practice." This is answered on a likert scale, but then the analysis used was a logistic regression. Was this scale dichotomized later or were different analytic tools used for this statement and the other outcome variable (s)? If dichotomized, what was the reason for grouping responses together? I am particularly intrigued by the number of people who said "somewhat agree," as these people do not seem very sure that decision tools that show costs are useful to them. In practice, I am suspicious that they would incorporate them. Therefore, I think this should be separated out in the analysis rather than grouped together with the "strongly agree" respondents (only 20%) and conclusions adjusted accordingly. c. In the description of the analyses, you mention three dimension of SDM as your outcome variables "as described above," but I only noticed two in the description above (“Decision support tools that show costs would be helpful in my practice” (strongly disagree, moderately disagree, moderately agree, strongly agree); and “Should promoting shared decision-making be legislated to control overall health care costs” (yes/no)). Or were there four dimensions? (Which of the following is a major barrier to you more actively engaging patients in a process of shared decision-making?*; Promoting SDM should be legislated as a means of controlling health care costs; Decision support tools that show costs would be helpful in my practice; Level of enthusiasm for “promoting better conversations with patients” as a means to promote cost-containment).

	d. I think a bit more needs to be described in the discussion/conclusions about what is actually happening in practice. Many physicians here say they support SDM, but so few are practicing it (according to many studies) that I wonder if they have a different belief about what SDM actually is. Was there any attempt to explain what we mean by SDM to know if physicians are answering what we think they are answering? I didn't see it in the survey so I assume no; this should be added to the discussion to better frame the study findings.

REVIEWER	Alastair Bradley University of Sheffield Western Bank Sheffield United Kingdom I have received medical education grants from Bayer Healthcare Ltd. Boehringer Ingelheim Ltd and Pfizer Ltd in the last 12 months.
REVIEW RETURNED	14-Oct-2013

GENERAL COMMENTS	My concern is with one of the 3 main outcome measures when considering "Shared Decision Making as a Cost-Containment Strategy". "Decision support tools that show cost would be helpful in my practice" is asked in the questionnaire under "Medical Decision Making" in isolation from cost-containment P29 line 52. Whilst this question may be a valid one when considering cost-containment it is also valid in terms of physician considerations in how they may better involve patients in healthcare decision-making through the use of decision support tools. Whilst the results may reflect some cost-containment strategy the question asked does not identify cost-containment as a consideration when asking this question. The other 2 outcome measures are quite clear in relation to the question cost-containment strategy. I consider that the expression of cost on a decision support tool should be explained more fully in relation to the title. Overall this was an interesting and well-presented paper, covering a vast array of considerations that raise further research questions. I enjoyed reading this article.

REVIEWER	Leroy Edozien St Mary's Hospital Manchester Academic Health Science Centre Manchester UK
REVIEW RETURNED	25-Oct-2013

GENERAL COMMENTS	Well written paper. A significant distinction has to be made: The authors say 'it is unclear why physicians disagree with legislating SDM'. The actual question was 'Should promoting shared decision-making be legislated to control overall health care costs?' This is a different question from "Should promoting shared decision-making be

	legislated?' Many physicians may be happy for SDM to be legislated, but not if it is for the purpose of containing costs.

VERSION 1 – AUTHOR RESPONSE

Reviewer Comments	Response/Description of Changes
Reviewer 1 - Politi	
a. In general, I think the methods section could use some clarification. For example, I would like to know some more details about the development of the measure. Can you clarify how many focus groups were conducted, how many cognitive interviews were done, and what existing measures you adapted? (p. 5 starting at line 12, survey instrument).	Thank you for the suggestion. We have added detail as requested to the “Survey Instrument” section of the Methods section.
b. Also, you mention that one of your outcomes was degree of agreement with the statement “Decision support tools that show costs would be helpful in my practice." This is answered on a likert scale, but then the analysis used was a logistic regression. Was this scale dichotomized later or were different analytic tools used for this statement and the other outcome variable (s)? If dichotomized, what was the reason for grouping responses together? I am particularly intrigued by the number of people who said "somewhat agree," as these people do not seem very sure that decision tools that show costs are useful to them. In practice, I am suspicious that they would incorporate them. Therefore, I think this should be separated out in the analysis rather than grouped together with the "strongly agree" respondents (only 20%) and conclusions adjusted accordingly.	We have altered our analysis to reflect the original distribution of this item and no longer lump “somewhat agree” and “strongly agree” together, but instead conduct all logistic regression models (adjusted and unadjusted) with “strongly agree” versus all other responses as the dependent variable for the decision support tools item (see Table 4). The methods, results, and discussion sections have all been revised accordingly.
c. In the description of the analyses, you mention three dimension of SDM as your outcome variables "as described above," but I only noticed two in the description above (“Decision support tools that show costs would be helpful in my practice” (strongly disagree, moderately disagree, moderately agree, strongly agree); and “Should promoting shared decision-making be legislated to control overall health care costs” (yes/no)). Or were there four dimensions? (Which of the following is a major barrier to you more actively engaging patients in a process of shared decision-making?*; Promoting SDM should be legislated as a means of controlling health care costs; Decision support tools that show costs would be helpful in my practice; Level of enthusiasm for “promoting better conversations with patients” as a means to promote cost-containment).	Thank you. The revised manuscript we hope more clearly specifies the three primary outcome measures of interest (see Table 2), and a fourth measure on barriers to SDM that we now clearly present as an attitudinal covariate in our analyses.

I think a bit more needs to be described in the discussion/conclusions about what is actually happening in practice. Many physicians here say they support SDM, but so few are practicing it (according to many studies) that I wonder if they have a different belief about what SDM actually is. Was there any attempt to explain what we mean by SDM to know if physicians are answering what we think they are answering? I didn't see it in the survey so I assume no; this should be added to the discussion to better frame the study findings.	We did not define “shared decision making” and now outline that in the limitations section of the Discussion. We also elaborate on the difference between what physicians think they do and what the literature says they do. (pages 9 and 10)
Reviewer 2 - Bradley	
My concern is with one of the 3 main outcome measures when considering "Shared Decision Making as a Cost-Containment Strategy". "Decision support tools that show cost would be helpful in my practice" is asked in the questionnaire under "Medical Decision Making" in isolation from cost-containment P29 line 52. Whilst this question may be a valid one when considering cost-containment it is also valid in terms of physician considerations in how they may better involve patients in healthcare decision-making through the use of decision support tools. Whilst the results may reflect some cost-containment strategy the question asked does not identify cost-containment as a consideration when asking this question. The other 2 outcome measures are quite clear in relation to the question cost-containment strategy. I consider that the expression of cost on a decision support tool should be explained more fully in relation to the title.	We agree. The point of reporting this item was not to corroborate a claim that physicians endorse SDM for cost-containment, but that they see some role for discussion of cost in patient-centered care. We have noted the reviewers’ concern in the limitations section of the Discussion. We have also tempered our inferences related to this item in the Discussion (paragraph 2).
Reviewer 3 - Edozien	
A significant distinction has to be made: The authors say 'it is unclear why physicians disagree with legislating SDM'. The actual question was 'Should promoting shared decision-making be legislated to control overall health care costs?' This is a different question from ''Should promoting shared decision-making be legislated?' Many physicians may be happy for SDM to be legislated, but not if it is for the purpose of containing costs.	Thank you for this suggestion. We agree. We have revised our language on the bottom of page 9 to reflect the precision the reviewer is suggesting.

VERSION 2 – REVIEW

REVIEWER	Mary Politi Washington University in St Louis, USA
REVIEW RETURNED	25-Nov-2013

GENERAL COMMENTS	abstract might need some editing and I am still wondering why they

	dichotomize outcome variables rather than report them on the full Likert scale as they were collected. I think it is worthy of accepting but some minor revisions could help better describe the findings. Thank you for submitting this revised manuscript. The manuscript has been improved and the authors responded to most of the reviewers' suggestions. It will make an excellent contribution to the literature. I have a few remaining minor suggestions: 1. in the abstract, the discussion about physician identified barriers to SDM in general (patient confusion, lack of patient interest) seems to distract from the findings about attitudes toward using SDM as a cost containment strategy. I suggest deleting this as the paper is really about physicians SDM as a means to control costs. 2. In the methods and results, I am still unclear about why results are dichotomized instead of presented on a Likert scale as they were collected. I appreciate that the authors revised the results and separated "strongly agree" from the others, but my initial comment was meant to inquire about why the scale was dichotomized at all. "Ease of presentation" does not seem a sufficient justification. Otherwise, why not just collect in terms of "yes" or "no?" The strength of agreement appears to have been important upon initial design of the survey, and I do think it would be helpful to see in the results. I am wondering about the item asking about decision support tools showing costs. I can imagine that some MDs would find these to be very helpful, not necessarily as a means to contain costs, but to help patients make decisions incorporating costs. 3. The discussion (like the abstract) also talks about the barriers cited by MDs about SDM in general. I am not sure those findings fit in this paper. What I think would be more important to discuss is the debate about whether SDM will wind up controlling or reducing costs at all--perhaps some people do not support this because they fear it won't work. Although some studies show that patients might choose less invasive options given the data, others show that patients might choose more invasive (expensive) options given the data. The jury is still out on this, and that could have affected the results or people's response to the item about whether it should be legislated as a means to control costs. Very minor--a few typos are present (potentially from track changes), e.g. p.5, line 32 "in particular particularly," and in other places there are words together without spaces or commas instead of periods. Thank you for submitting this revised paper on this interesting and important topic.

VERSION 2 – AUTHOR RESPONSE

a. In the abstract, the discussion about physician identified barriers to SDM in general (patient confusion, lack of patient interest) seems to distract from the findings about attitudes toward using SDM as a cost containment

strategy. I suggest deleting this as the paper is really about physicians SDM as a means to control costs.

- We agree and have deleted this from the Abstract

b. In the methods and results, I am still unclear about why results are dichotomized instead of presented on a Likert scale as they were collected. I appreciate that the authors revised the results and separated "strongly agree" from the others, but my initial comment was meant to inquire about why the scale was dichotomized at all. "Ease of presentation" does not seem a sufficient justification. Otherwise, why not just collect in terms of "yes" or "no?" The strength of agreement appears to have been important upon initial design of the survey, and I do think it would be helpful to see in the results. I am wondering about the item asking about decision support tools showing costs. I can imagine that some MDs would find these to be very helpful, not necessarily as a means to contain costs, but to help patients make decisions incorporating costs.

- The reviewer raises a legitimate concern. Our alteration of the dichotomized dependent variable in the initial re-submission (i.e. strongly agree versus all other responses) does better demonstrate the differences between a unique group of respondents and others who did not feel as strongly in their reaction to this survey item. In order to report the type of findings the reviewer suggests, this would require a different analysis approach– from multivariate logistic regression to multinomial logistic regression models in which the dependent variable is allowed to have more than 2 levels. *We can certainly undertake this alternate form of analysis if the editors deem it necessary.* However, our concern in doing so is that it would render our findings more difficult to interpret succinctly for a general medical audience, especially for a readership perhaps not well-versed in more sophisticated statistical techniques. For the sake of simplicity and ease of reporting, we have always opted to use standard logistic regression knowing that doing so may hinder our ability to detect more subtle differences across response categories. In short, we would propose that the results remain in their current form of presentation, but are certainly amenable to performing the more sophisticated multinomial logistic regression modeling if the editors desire.

c. The discussion (like the abstract) also talks about the barriers cited by MDs about SDM in general. I am not sure those findings fit in this paper. What I think would be more important to discuss is the debate about whether SDM will wind up controlling or reducing costs at all-- perhaps some people do not support this because they fear it won't work. Although some studies show that patients might choose less invasive options given the data, others show that patients might choose more invasive (expensive) options given the data. The jury is still out on this, and that could have affected the results or people's response to the item about whether it should be legislated as a means to control costs.

- We agree that the primary debate that these data address is whether SDM will actually *and should* be used to control costs. We minimize the barriers data in the revised draft. (The ‘should’ part of this question will not be answered by the data of whether it actually will, because the ‘should’ question is a partly a normative, not just empirical question.) That still makes it a salient (if unsettled) policy question and the revised limitations section acknowledges this reality. We elected to include (although no longer highlight in the abstract) barriers to SDM as a key covariate in their judgments about SDM as a costcontainment strategy. In the revised discussion we highlight this rationale for including barriers. On page 11 we add “And while self-reported barriers to SDM were not the focus of this survey, we thought it was important to include them as potential key covariates for respondents’ judgments about SDM as a costcontainment strategy. For instance, those who feel their work environment is not supportive of SDM may find legislating it the only viable option for change.”

d. a few typos are present (potentially from track changes), e.g. p.5, line 32 "in particular particularly," and in other places there are words together without spaces or commas instead of periods.

- Thank you for directing our attention to these – we have made corrections throughout where needed.