Reviewer's report

Title: Adjuncts or adversaries to shared decision making? Applying the Integrative Model of Behavior to the role and design of decision support technologies in health care interactions

Version: 1 **Date:** 23 July 2008

Reviewer: richard L street

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Review of “Adjuncts or Adversaries….”

This paper takes an important step in moving research on decision support aids from the cognitive realm to the communicative. In clinical settings, decision-making is most fundamentally a communicative phenomenon. Thus, decision aids should ultimately be decision communication aids.

The question is then, what theory can one use to provide a conceptual context for the development and evaluation of decision support resources? These authors have chosen Fishbein’s Integrative Model of Behavior (IMB) and argue that active patient participation in decision-making is a health behavior and thus influenced by the same types of factors as would other health behaviors (diet change, exercise, cancer screening, etc). Based on IMB, they argue that participation in decision-making will depend on patient’s attitudes toward the action, self-efficacy, and perceived social norms (what significant others think).

While the IMB is an important theoretical step forward, ironically, it suffers to some degree from the same limitations of decision aids—explaining communication as a cognitive, individualistic phenomenon (even Makoul’s application of IMB makes the same assumption). IMB is heavily cognitive and exclusively individualistic (even perceived social norms is what the individual thinks others think). Moreover, in many studies using the IMB, the primary outcome is not a behavior but behavioral intent, another cognitive variable. Now one can argue that intent often predicts behavior, etc, but the point is that this is fundamentally a cognitive model. Note also that, although one of the most powerful predictors of active participation is the clinician’s partnering and facilitative behavior (or inhibiting behavior), there is no mention of this. In short, the paper reads as though patient participation is essentially a set of beliefs that moves a person from inaction to action in a dyadic void. And, of course, this is not the case.

This is not to say that IMB is not useful or can be made useful. In fact, I think it can but the authors need to address why this model as opposed to other communicative models. For example, models of communication competence argue that communication skill depends on motivation, knowledge, and skill. Thus, a decision aid can help people become more effective communicators in

decision-making if by encouraging and stressing the legitimacy of patient participation (motivation), providing health related information (hard to talk about something you don't know much about) and tactics for communication (knowledge), and providing opportunities to practice responses (skills).

Or perhaps, use a model of medical decision quality where the key communication tasks require (a) presenting clinical evidence, (b) sharing patient perspective (beliefs, values, and preferences), (c) finding common ground, reconciling differences, and achieving consensus, and (d) verifying feasibility. Again, the issue is not to compare IMB to all other possibilities, but to show how some of these perspectives, which directly address decision making and communication, might help inform this application of IMB.

Below are some references (sorry to give my identity away) that provide such a perspective.1, 2 Not that these need to be cited, but they may give some talking points about connecting IMB the dynamics of conversational interaction.

Consider, for example, on p. 12 where the authors discuss the 'surprising' findings that a number of patients who viewed the video were less likely to 'work with the doctor.' The communication message in the brochure was encouraging the patient to talk with the doctor whereas the video message was the patient has to decide if screening is important. In short, the brochure addressed the motivational component to talk with your doctor where the video stressed the motivation that it is an individual, not a collaborative decision. Thus, these results are not surprising at all, especially when placed in the context of communication required for shared decision-making.

That being said, communication is certainly affected by cognitive processes and IMB has considerable utility in identifying predictors of behavior. One that could be adapted to the context of communication is self-efficacy in that one can have items related to confidence in sharing opinions, including confidence in discussing preference/opinions when the clinician seems not very interested or supportive. So the success of IBM will in part depend on how items for measurement are selected.

I've gotten on the bully pulpit here mostly to provide a perspective in the hope that in the final revision, the authors try to place the IMB in the context of the dynamics of personal and mutual influence on communication. That is, involvement in decision-making is about speaking up; shared decision-making is about shared understanding and consensus. The former is a necessary, but not sufficient condition for the latter. So when developing a decision aid, is it to help patient express their views, or is it to achieve mutually agreed upon treatment decisions?

So, specific suggestions for the paper include:

Minor Essential Revesions

1. Make an effort to discuss the IMB in the context of the interaction, not just individual performance, and how this helps inform the development and

evaluation of support aids. For example, in addition to 'expressing' and 'discussing' as observable patient behaviors, some mention might also be made of 'negotiating' or 'defining roles,' 'finding common ground.'

2. p. 7…perhaps summarize the main parts of IMB in a table rather than a long list of variables in the text.

3. Revise Table 1 to include at least a few items in shared decision-making; not just speaking up.

4. (p. 13) Another methodological option would be to record consultations and have observers rate/evaluate shared decision-making elements. Also, there might be a handful of powerful behaviors that can be easily observed or assessed. For example, a handful of speech acts such as asked questions, offered opinions, made recommendations, and expressed concerns might be targeted as particularly important in the decision-making process.

So a few suggestions for improvement. But, overall, a potentially very important paper with considerable heuristic value. It presents a refreshing message and a perspective that developers of decision support technologies should hear.

Reference List

(1) Street RL, Jr. Interpersonal communication skills in health care contexts. Greene JO, Burleson B.R (eds), editors. Handbook of communication and social interaction skills. 909-933. 2003. Mahwah, NJ, Lawrence Erlbaum.

Ref Type: Generic

(2) Street RL, Jr. Aiding medical decision making: a communication perspective. Med Decis Making 2007 September;27(5):550-3.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.