Tips For Talking With Patients About PSA Screening

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Equipoise – Where Shared Decision Making is Most Relevant

• SDM is most relevant in clinical situations in which there is clinical equipoise about what to do next.

• These areas are also known as preference sensitive care.

• Preference sensitive decisions are those where more than one reasonable path forward exists (including the option of doing nothing), and different paths entail varying combinations of potential benefits and risks.

• PSA screening is a perfect example (as is prostate cancer treatment decision making)
Are we there yet?
A common sentiment among healthcare providers:

“We already do that all the time.”
Reality Check

- Would ask questions: 93.1%
- Would discuss preferences: 94.0%
- Would disagree: 0.0%
Most people don’t feel comfortable disagreeing with a physician’s recommendation

- 93.1% would ask questions
- 94.0% would discuss preferences
- 14.0% would disagree
Reality Check

Because they fear being labeled a “difficult patient”

Adams et al, 2012, Archives of Internal Medicine
Challenges to Shared Decision Making

- Physician based
  - Time constraints
  - Lack of interest in shared decision making
  - Lack of skills
  - Patient aren’t always equal partners
    - “What should I do doc”
Challenges to Shared Decision Making

- Patient based
  - Knowledge
    - Disease specific
    - Literacy and numeracy deficits
  - Lack of awareness of values / goals /preferences
    - Or how to communicate them)
  - Difficulty communicating with physician
How Literacy Impacts Shared Decision Making
Literacy in the US

- Average person reads at a 7th-8th grade reading level.
- To put in context of patient education materials: Most decision aids are written at at least a 9th grade reading level (and most at a college reading level).
How Numeracy Impacts Shared Decision Making
What is Numeracy?

• The ability to comprehend, use, and attach meaning to numbers.
Putting Numeracy into Context

• Numeracy
  – What is a bigger risk:
    • 1%
    • 5%
    • 10%?
Putting Numeracy into Context

- Numeracy
  - What is a bigger risk:
    - 1 out of 10
    - 1 out of 100
    - 1 out of 1000?
Why is Numeracy Important in Prostate Cancer Screening

- Understanding benefits of screening
- Understanding false positives
- Deciding whether or not to be screened
Preference Elicitation (Values Clarification)
Preferences in Decision Making

• Patients often do not start out with a particular treatment preference.
  – Also do not realize what components of the decision, the trade-off, is most important to them.

• Need to have a process to determine what they most care about and how that matches their treatment choice.
What does this mean in the context of patient decision making / DAs?

- People often don’t just have a preference.
  - Their preference is determined, in part, by how you ask them about their preference or how you describe their options.
  - Another reason why the way in which you communicate to patients really matter.
Use of Motivational Interviewing

• Focused, goal directed
• Ask open-ended questions, follow up on comments made during their answers.

• LISTENING
  – Affirming what they are saying
  – Repeating/reframing what they say to make sure you are understanding what they MEAN (not just what they are saying).
  – Non-judgmental
Use of Motivational Interviewing

• Engage patient
  – Talk about issues, concerns they have. What are their hopes? Develop relationship with the patient.

• Narrow focus
  – Narrow down what they want to focus on? What are their key questions, key worries? What do they want to achieve during this visit.

• Planning
  – Develop next steps (post visit encounter). How are they going to make the screening decision? What are the next steps regardless of outcome of PSA screening?
RISK COMMUNICATION STRATEGIES
Absolute vs. Relative Risk Presentation
Absolute vs. Relative Risk

• What if I told you a drug could reduce your risk of prostate cancer by 50%? (Relative risk presentation)

• What if I told you a drug could reduce your risk from 2% to 1%? (Absolute risk presentation)

• Drug has same effect, but sounds much better in relative risk format.
Recommendation

• If you are trying to inform a patient (and not persuade) a patient then you absolutely should use absolute risk presentation.
  
  – Review of PSA screening guidelines showed that framing of PSA risks and benefits are either missing risks or use “mis-matched framing”
    
    – Caverly, Hayward, Reamer, Zikmund-Fisher, Connochie, Heisler, & Fagerlin. JNCI 2016
Using Graphs to Communicate Numbers
Graphical Format

• To help improve people’s ability to understand numerical information, graphical representations of risk are often used.

• But which format to use? Lots of choices, but little information about which is best for communicating health information.
Bar Graphs

Decreased risk of needing bypass surgery caused by taking pills

- Pill A:
- Pill B:

* Each graph represents 100 people

Need bypass surgery

Increased risk of headaches and nausea caused by taking pills

- Pill A:
- Pill B:

* Each graph represents 100 people

Get mild headaches
Get severe nausea
Pie Graphs

Decreased risk of needing bypass surgery caused by taking pills

Pill A:  
- Graph represents 100 people  
- Orange slice: Need bypass surgery

Pill B:  
- Graph represents 100 people  
- Orange slice: Need bypass surgery

Increased risk of headaches and nausea caused by taking pills

Pill A:  
- Graph represents 100 people  
- Blue slice: Get mild headaches
- Black slice: Get severe nausea

Pill B:  
- Graph represents 100 people  
- Blue slice: Get mild headaches
- Black slice: Get severe nausea
Clock Graphs (Modified Pie)

Decreased risk of needing bypass surgery caused by taking pills

Pill A:  
- 0%  
- 10%  
- 20%  
- 30%  
- 40%  
- 50%  
- 60%  
- 70%  
- 80%  
- 90%  

Pill B:  
- 0%  
- 10%  
- 20%  
- 30%  
- 40%  
- 50%  
- 60%  
- 70%  
- 80%  
- 90%  

* Each graph represents 100 people

Need bypass surgery

Increased risk of headaches and nausea caused by taking pills

Pill A:  
- 0%  
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Pill B:  
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- 20%  
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- 40%  
- 50%  
- 60%  
- 70%  
- 80%  
- 90%  

* Each graph represents 100 people

Got mild headaches

Got severe nausea
Pictographs

**Decreased risk of needing bypass surgery caused by taking pills**

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*Each graph represents 100 people

- Orange bars: Need bypass surgery
- Blue bars: Get mild headaches
- Black bars: Get severe nausea
Sparkplug Graphs
(Modified Pictograph)

Decreased risk of needing bypass surgery caused by taking pills

Pill A:

* Each graph represents 100 people

Need bypass surgery

Pill B:

Increased risk of headaches and nausea caused by taking pills

Pill A:

* Each graph represents 100 people

Get mild headaches

Get severe nausea

Pill B:
Methods:

Knowledge Questions

• 6 knowledge questions
  – 2 “gist knowledge” questions asked which treatment yielded the best (or worst) outcome (e.g., more likely to experience nausea with Pill A or Pill B?).
  
  – 4 “verbatim knowledge” questions asked the number of patients affected by a treatment and to calculate numerical differences between treatments.
## Accuracy of Responses: Gist Knowledge

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Means = number of correct responses out of 2 questions.

Accuracy was greatest for pie graphs and pictographs (F = 4.09, p = .001).
### Accuracy of Responses: Verbatim Knowledge

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Means = number of correct responses out of 4 questions.

Accuracy was greatest for Pictographs (F = 321.03, p < .001)
Which Graphs Produced Best Knowledge?

• People’s gist and verbatim understanding of risk varied significantly across graphs.
  – For gist knowledge questions, pie graphs were effective, but pies were ineffective for verbatim knowledge questions.
  – Pictographs were the only graph that consistently led to more accurate risk knowledge across both gist and verbatim questions.
Recommendation

• If you choose to use a graph, use a pictograph to visually represent the risks and benefits of treatment.

• [www.iconarray.com](http://www.iconarray.com)

Do the Icons in a Pictograph Matter?

• Many choices for an icon:
  – Shapes: rectangle, oval
  – Faces: real pictures, smiley faces 😊,
  – Restroom sign pictures
  – Head outlines (think facebook profiles without a picture)
Do the Icons in a Pictograph Matter?

- Risk recall was significantly higher with more anthropomorphic icons (restroom icons, head outlines, and photos) than with other icon types.
- Participants rated restroom icons as most preferred.
- Restroom icons resulted in the highest correlations between perceived and actual risk among more numerate/graphically literate participants, they performed no better than other icon types among less numerate/graphically literate participants.
The Power of Labels

- Sometimes labels are used to introduce and interpret the test outcome
  - “your biopsy was positive”
  - “your PSA levels were normal”

- Provide affective / categorical meaning to numbers
  - *But,* does the label end up replacing the number in patients’ minds?
Short Answer: Yes

• Participants ignored baseline and post test risk estimates and focused mostly on the label of normal/abnormal.
Why Are Labels So Powerful?

• Interpretive labels ...
  – Simple to understand
  – Affectively salient

• Labels may cause people to skim over details or specific risk estimates
  – Only remember outcome as good or bad.
Words and Numbers Interact

• Interpreting test results for patients is *not* innocuous
  – Just one sentence of introduction can significantly change beliefs and subsequent treatment choices.
  – So telling a guy he has an abnormal PSA can easily start him down a pathway for aggressive treatment, regardless of appropriateness.
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