Decision Aids for Cancer Screening: Do They Make a Difference?

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Learning Objectives: Learn About

- How the increasing complexity of cancer screening guidelines necessitate greater communication between patients and clinicians
- How decision aids may help patients and clinicians make such informed decisions, i.e., shared decision making
- How the decision aids actually fare regarding shared decision making and patient screening behavior
- How decision aids can be used to facilitate effective patient-clinician discussions on cancer screening

Cancer Screening Has Become More Complex

- Guidelines now recommend more options for cancer screening.
  - Breast: To get tested or not for those between ages 40 and 49 years
  - Cervical: Cytology every 3 years or cytology + HPV every 5 years for those between ages 30 and 65 years
  - Colorectal: Greater accuracy of stool tests, increasing their utility vis-à-vis colonoscopy
- Some guidelines have conflicting recommendations.
  - Prostate: To get tested or not (USPSTF vs. others)

Need for Patients to Make Decisions

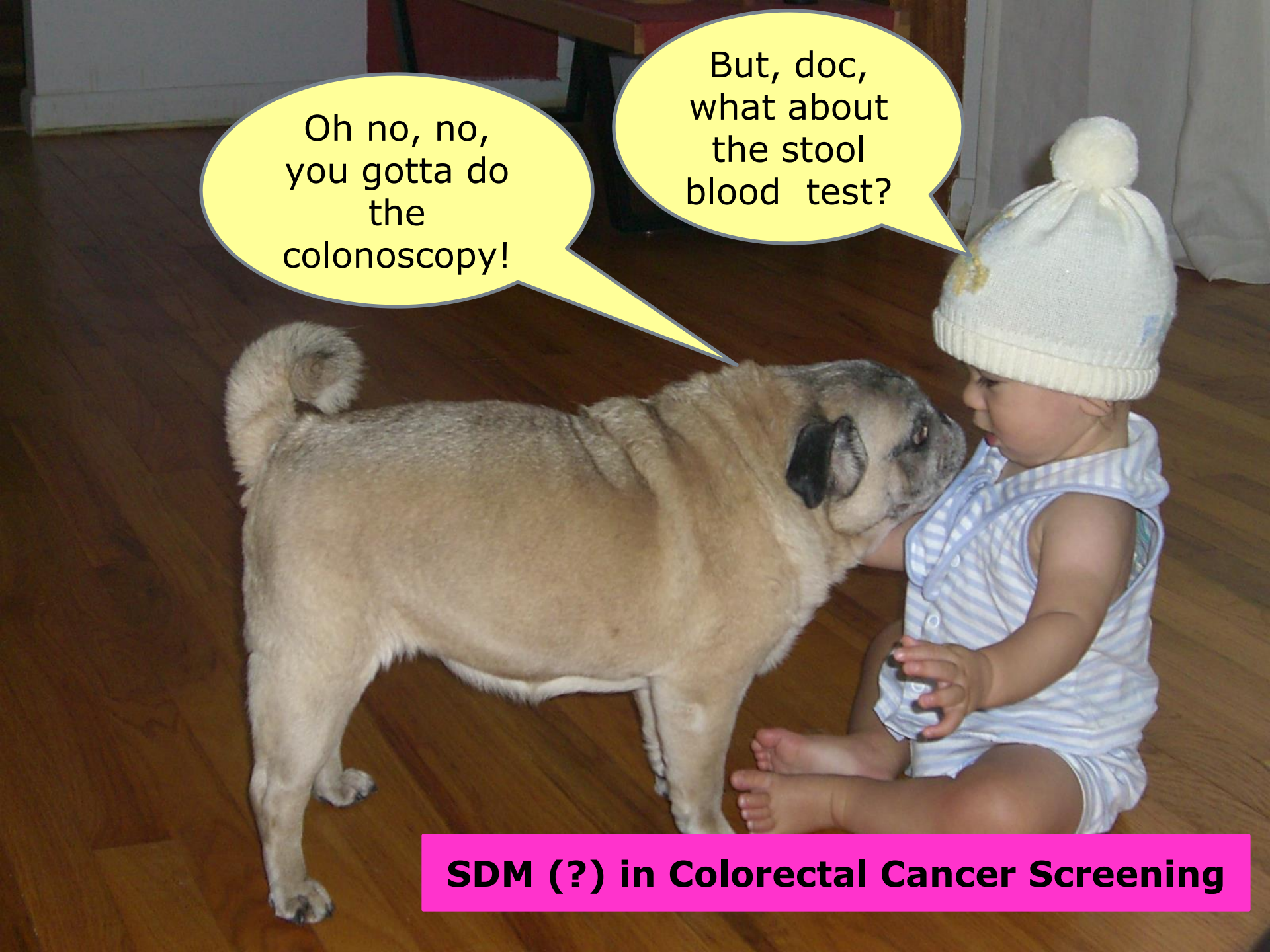
- Patients, with their clinicians' support, must decide:
  - Whether to get screened or not
  - Which screening method to choose
  - How often to get screened

The Need for Shared Decision Making (SDM)

- When the information and options are not provided within the context of their preferences and values, patients' ability to make a decision may actually decrease.
- Clinicians are encouraged to incorporate patient values when discussing cancer screening, counseling patients to choose the option most congruous with their preferences and values.
- SDM recognizes the central role of patient-clinician relationship in helping patients make such decision.

Problem with SDM

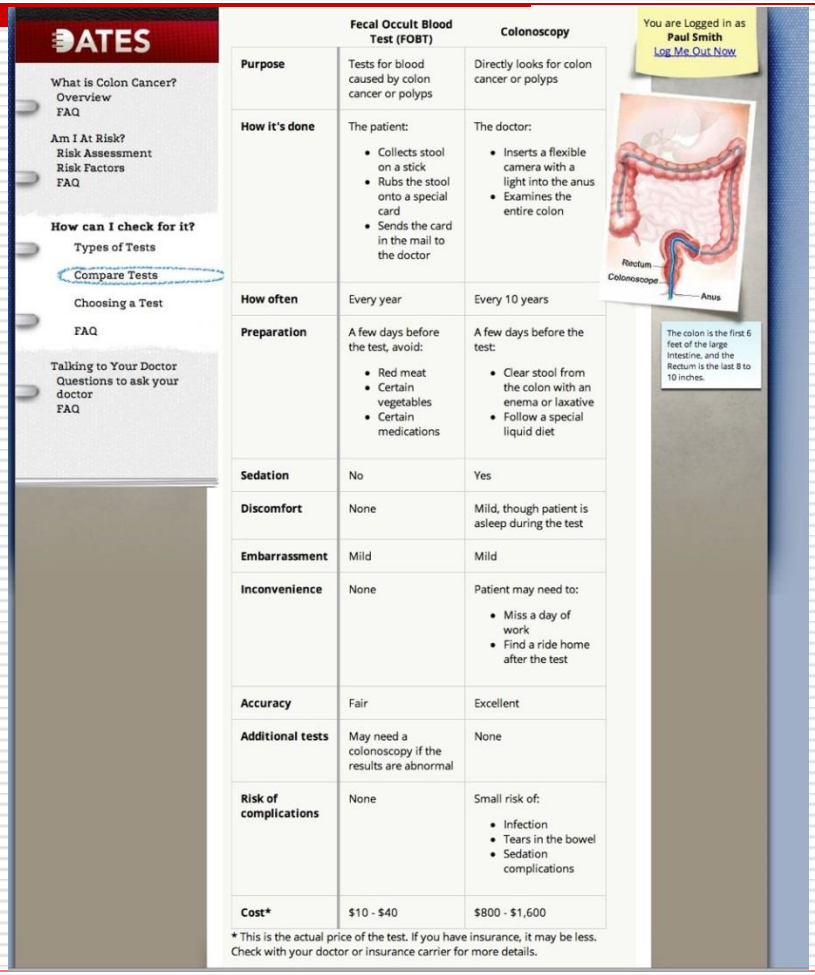
- However, SDM requires more time and resources than most clinicians have for a single issue, especially with multiple, competing agendas.
- Also, clinicians do not always correctly perceive and address those factors important to patients and may not have the training and skills to provide for an effective SDM.


But, doc, what about the stool blood test?
Oh no, no, you gotta do the colonoscopy!
SDM (?) in Colorectal Cancer Screening

Could Decision Aids (DAs) Help?

- DAs usually include:
  - Information on the disease/condition and the associated tests
  - Probabilities of outcomes (benefits and harms) for each test option
  - Values clarification exercise to help the patients determine which option would best match their values
  - Guidance in the process of decision making
- They are not meant to replace the discussion between the patient and his/her clinician, but rather to complement it.

Example of Probabilities of Outcomes for Each Test Option



DATES

What is Colon Cancer?
Overview
FAQ

Am I At Risk?
Risk Assessment
Risk Factors
FAQ

How can I check for it?
Types of Tests
Compare Tests
Choosing a Test
FAQ

Talking to Your Doctor
Questions to ask your doctor
FAQ

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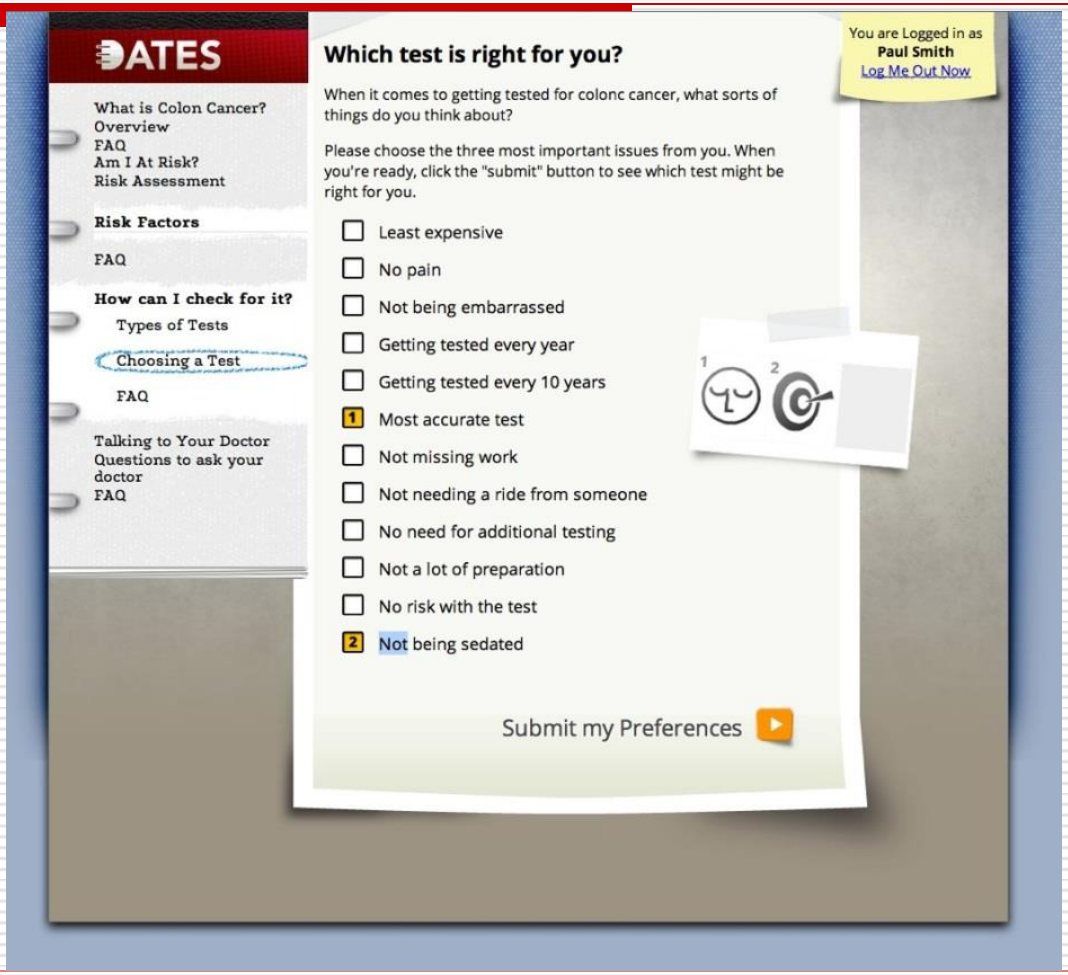
	Fecal Occult Blood Test (FOBT)	Colonoscopy
Purpose	Tests for blood caused by colon cancer or polyps	Directly looks for colon cancer or polyps
How it's done	The patient: • Collects stool on a stick • Rubs the stool onto a special card • Sends the card in the mail to the doctor	The doctor: • Inserts a flexible camera with a light into the anus • Examines the entire colon
How often	Every year	Every 10 years
Preparation	A few days before the test, avoid: • Red meat • Certain vegetables • Certain medications	A few days before the test: • Clear stool from the colon with an enema or laxative • Follow a special liquid diet
Sedation	No	Yes
Discomfort	None	Mild, though patient is asleep during the test
Embarrassment	Mild	Mild
Inconvenience	None	Patient may need to: • Miss a day of work • Find a ride home after the test
Accuracy	Fair	Excellent
Additional tests	May need a colonoscopy if the results are abnormal	None
Risk of complications	None	Small risk of: • Infection • Tears in the bowel • Sedation complications
Cost*	$10 - $40	$800 - $1,600

* This is the actual price of the test. If you have insurance, it may be less. Check with your doctor or insurance carrier for more details.

The colon is the first 6 feet of the large intestine, and the Rectum is the last 8 to 10 inches.

Decision Aid to Technologically Enhance shared Decision Making (R01CA152413)

Example of Value Clarification



Decision Aid to Technologically Enhance shared Decision Making (R01CA152413)

What the Review Did

- Reviewed the literature on what is known about the effect of DAs on SDM and cancer screening
  - Was the effect of the decision aid (DA) on the subsequent discussion between the patient and his/her clinician assessed?
  - Did the DA affect the screening behavior?

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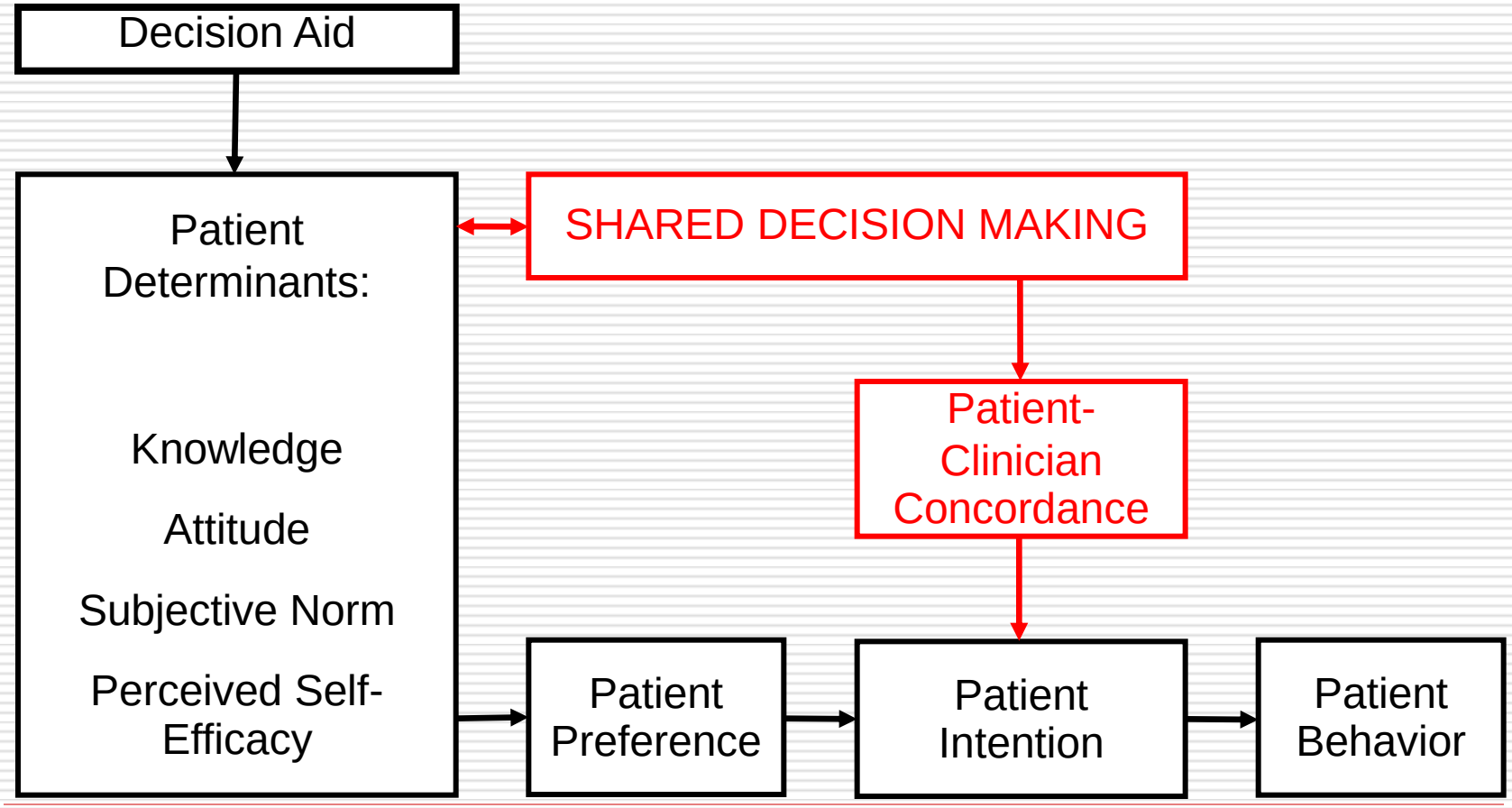
Theoretical Framework



Design: Cancers Screened

- We focused our attention on cancers for which the national guidelines recommend screening the general population.
  - Breast
    - Mammography
    - Genetic testing for selected high-risk women desiring further screening evaluation for breast cancer
  - Cervical
  - Colorectal
  - Prostate (controversial)

Design: Databases and Keywords

- 5 databases from 1980 to May 2012
  - MEDLINE, CINAHL, EMBASE, Cochrane Central Register of Controlled Trials, Science Citation Index
- 12 keywords
  - *Breast Neoplasms*, *Colorectal Neoplasms*, *Uterine Cervical Neoplasms*, *Prostatic Neoplasms*, *Mass Screening*, *Decision Support Techniques*, *Decision Making*, *Computer-Assisted Decision Making*, *Clinical Decision Support Systems*, Limited text word searching

Design: Articles Included in the Review

- Full-text, original research
- DA used as intervention
- Evaluation of DA's effect on patient knowledge, attitude and/or behavior
- Healthy patients without established cancer diagnosis
- Focused on screening only and no treatments

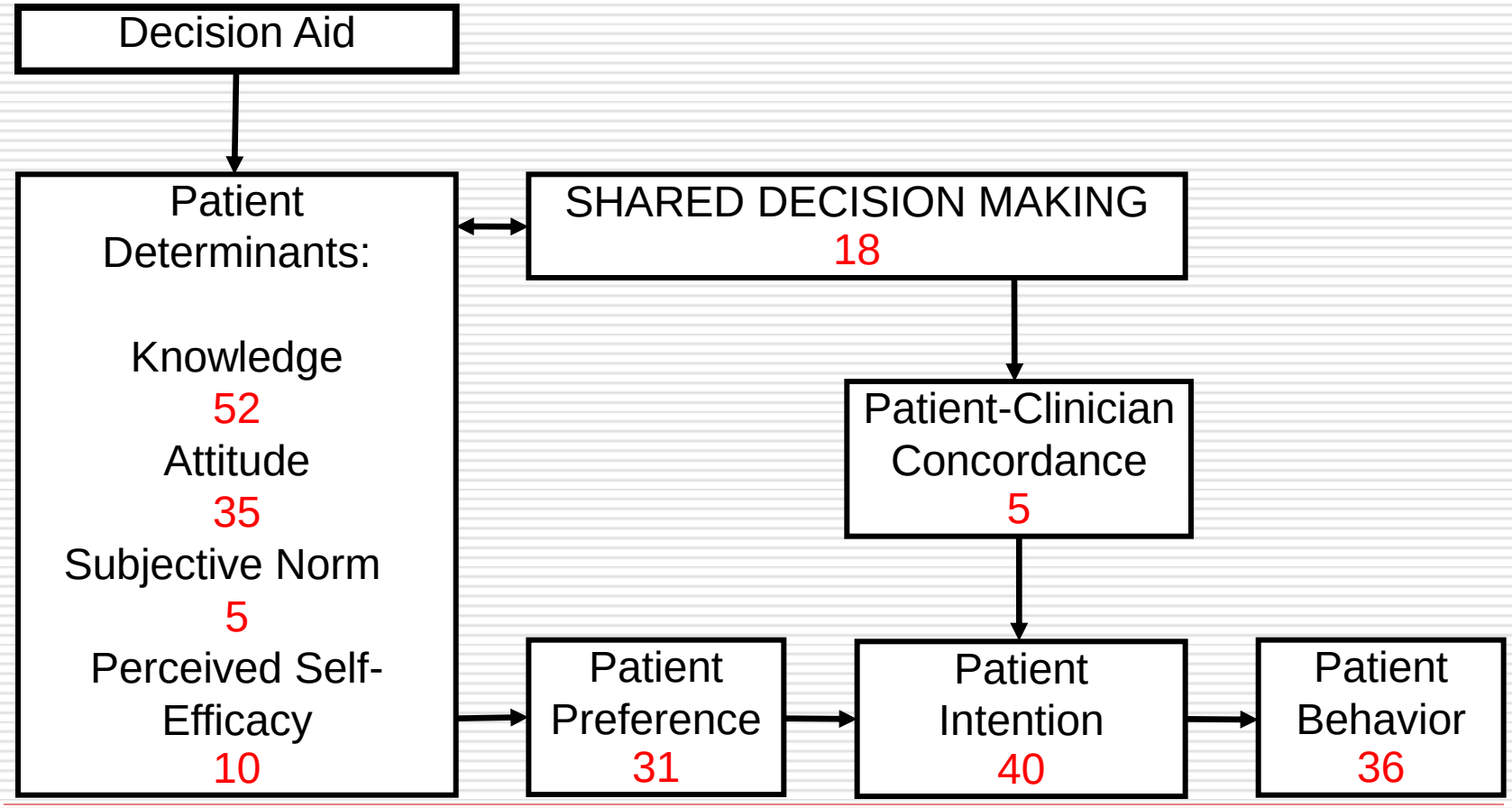
Design: Review Questions

- Does the DA utilized in the study address the issues important to be addressed in a screening DA?
- Does the study measure the effect of the DA on the patient attributes established in the theories of behavioral research?
- Does the study address the impact of the DA on the patient behavior in question?
- Does the study address the effect of the DA on the subsequent discussion between the patient and his/her clinician?
- Does the DA appear to be applicable in real-world practices?

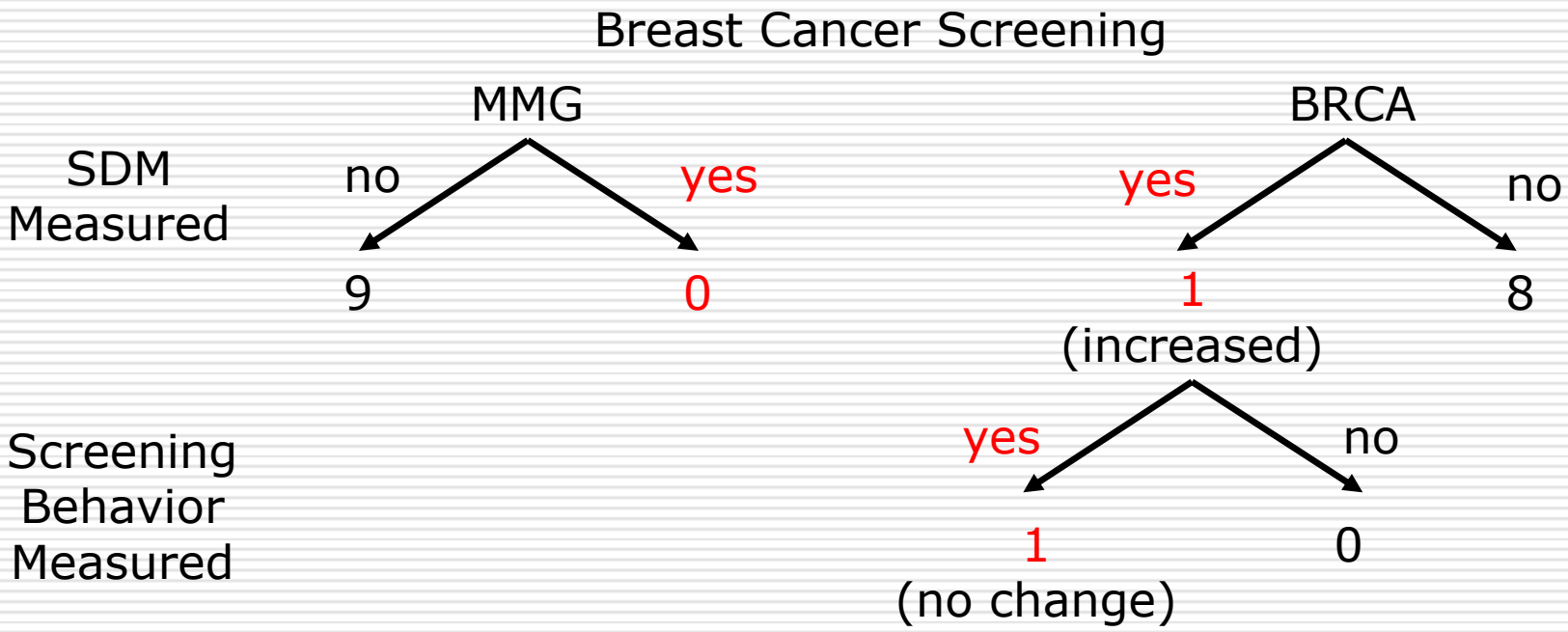
Results: 73 DAs in 79 Identified Studies

	Breast MMG/BRCA		Cervical	Colorectal	Prostate	Multiple
-1999	2	1	0	0	3	0
2000-04	4	3	1	4	8	0
2005-09	2	5	1	10	13	1
2010-	1	0	0	7	5	2
Total	**9**	**9**	**2**	**21**	**29**	**3**

Results: Outcomes Assessed (n=73)

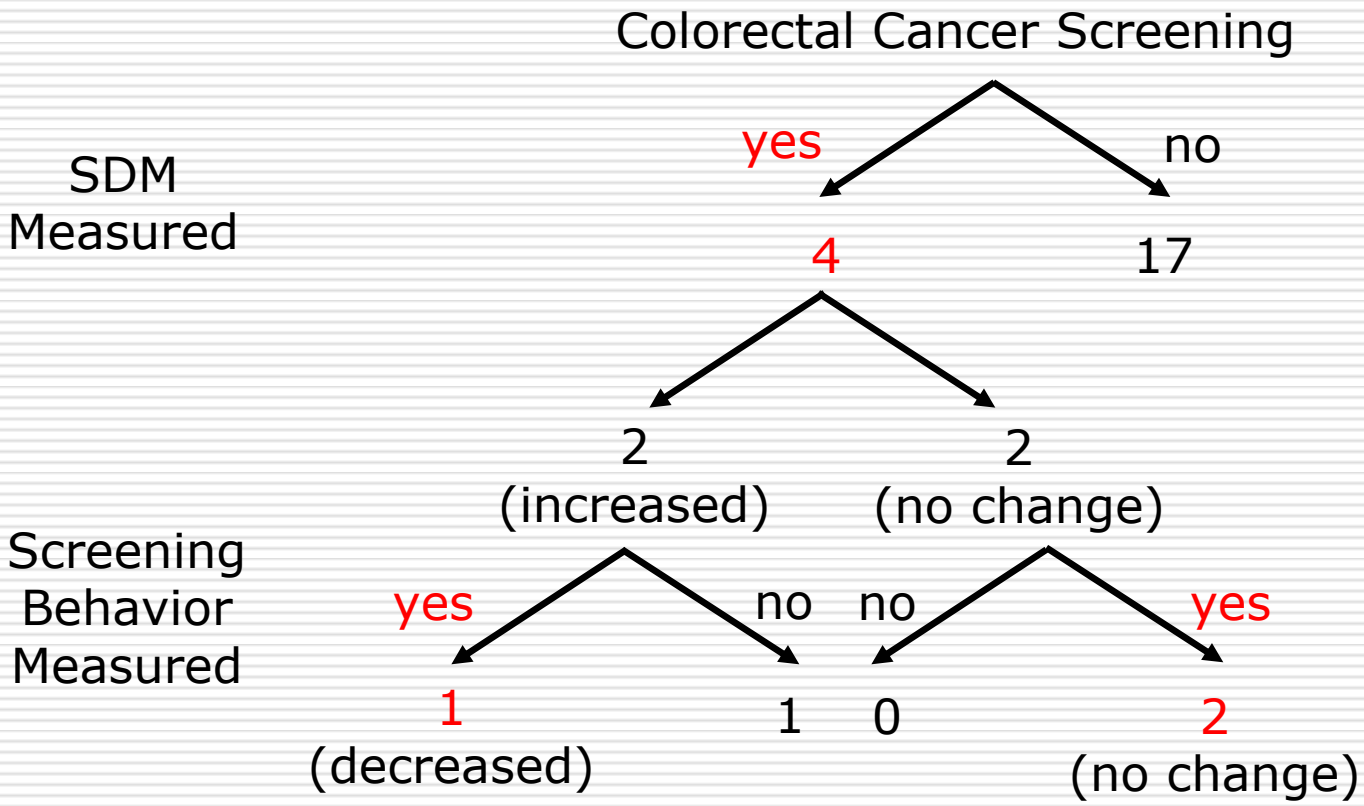


Results: SDM and Screening Behavior in Breast & Cervical Cancer

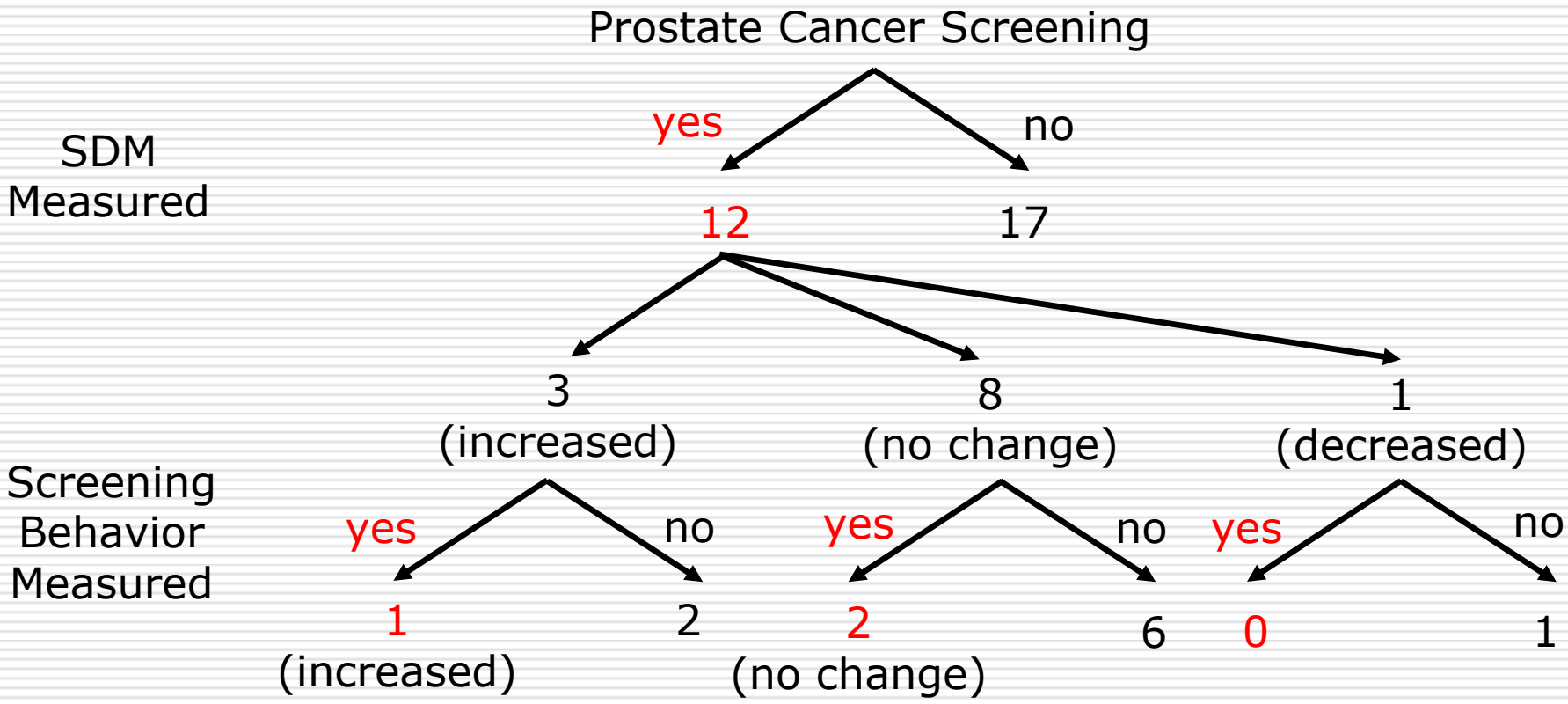


Cervical Cancer Screening: SDM not measured

Results: SDM and Screening Behavior in Colorectal Cancer



Results: SDM and Screening Behavior in Prostate Cancer



Overall…

- Intention measured in 40 of 73 DAs
  - Increased in 9: 7 colorectal, 1 cervical, 1 prostate
  - Decreased in 13: 8 prostate, 2 breast cancer genetic test, 1 MMG, 1 cervical, 1 multiple
  - Unchanged in 18
- Screening behavior measured in 36 of 73 DAs (18 self-report only)
  - Increased in 13: 7 colorectal, 3 prostate, 2 MMG, 1 cervical
  - Decreased in 5: 3 prostate, 1 breast cancer genetic test, 1 colorectal
  - Unchanged in 18
- Neither measured in 10 of 73 DAs
  - 5 prostate, 3 MMG, 1 colorectal, 1 multiple

Conclusion

- Studies so far on DA and cancer screening have not adequately addressed nor measured the effect of DA on SDM and subsequent screening behavior.
- There is a need for studies that measure all aspects of the decision making process in cancer screening and DA use.

What Can the Clinicians Do?

- Clinicians need to accept that cancer screening has elements that are sensitive to patient preferences and choice.
- It would be helpful for clinicians to know how to access useful DAs.
  - Repository of DAs available from the Ottawa Hospital Research Institute (web site: decisionaid.ohri.ca/AZlist.html)
- Many organizations (e.g., American Cancer Society) offer free information to patients in a way that may still provide them with desired information on how the cancer screening tests work and their risks and benefits.
- The state-of-the-art interactive DA may not be feasible in a real-world practice setting at this time.

Easier Said than Done…

- "I don't really want to discuss it. I just want to do it….I don't feel in my office I sit down and have a five or ten minute discussion of the pros and cons of hemocculs vs. colonoscopies." –Physician in a practice focus group session

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