What's Really Important?
Agreement Between Prostate Cancer Patients and Their Clinicians

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Introduction

- Many medical decisions are “utility driven” -- they rest on the patient's preferences or utilities rather than on clinical facts.
- For example, treatments for localized prostate cancer (surgery, radiation, or expectant management) are comparable in terms of life expectancy.
- Thus, patients' preferences for potential health outcomes, such as impotence and incontinence, should arguably guide the decision.

Predicted Utility

- Choosing a treatment for prostate cancer means evaluating potential future health states
- Patient has not yet experienced these health states
- Must predict his utility for potential health states
- Clinician as source of information
  - Has seen prior patients experience these health states

Research Question 1

- How close is the match between
  - a patient's prediction of preference for future health states and
  - actual experience with those health states, later
- Does the clinician predict any better?

Research Question 2

- How close is the match between
  - patient's judged preferences for potential future health states
  - clinician's estimate of the patient's preference
- Is patient-clinician agreement any better for the patient's currently experienced health state?

Research Question 3

- How reliable are patients' and physicians' judgments?
  - Could low reliability explain any lack of patient-clinician agreement?
  - Are patients more reliable than clinicians or vice versa?

Participants

Patients: an inception sample of 105 patients with newly diagnosed prostate cancer.

Clinicians: the clinician (attending, resident, or nurse) most closely involved in each patient's care (62% physicians, 36% nurses).

Analyses based on patient-clinician pairs.

Patient Sample

Married	51%
African American	57%
Less than high school education	29%
Retired	75%
Mean age (range)	69 (31 – 81)

Procedure Overview

- Evaluate 3 health states described on 6 attributes
- Describe patient's health using the 6 attributes
- Evaluate patients own health state
- Rank importance of 6 attributes
- Interview at diagnosis and 3 and 12 months later

Evaluate 3 Health States

- Patients and clinicians both evaluated three health states
- Health states were described on six attributes:
  - pain,
  - mood
  - sexual function
  - bladder and bowel function
  - fatigue and energy
  - appetite.

Evaluate Health States

- Each attribute had three possible levels (A = high, B = medium, C = low or poor).
- Three health states were constructed by combining the high, medium and low levels of all attributes.
- A fourth health state evaluated was the patient's own current health (P = personal health state).

Health State Descriptions

	State A	State B	State C
Pain	Very little or no pain, and it is easily controlled by medication.	Has a bearable amount of pain and it is moderately controlled by medication	Has a good deal of pain much of the time, and it is not well controlled by medication.
Mood	Hardly ever feels tense, worried, irritable, sad, or depressed.	Sometimes feels tense, worried, irritable, sad or depressed	Usually feels tense, worried, irritable, sad, fearful, or depressed
Sexual Function	Ability to have sex and enjoy it has been mildly affected	Ability to have sex and enjoy it has been moderately affected	Ability to have sex and enjoy it has been severely affected
Bladder & Bowel	Has mild difficulties with urinating or bowel function	Has moderate difficulties or problems with urinating or bowel function	Has severe difficulties with urinating or bowel function
Fatigue & Energy	Is able to do most usual activities nearly all the time. Not overly tired. Energy level pretty good.	Has some difficulty doing usual activities. Does less than before, is tired quite a bit. Needs assistance with some daily activities.	Needs a lot of assistance with many daily activities. Is very tired much of the time and spends a lot of time resting
Appetite	Usually has a good appetite	Sometimes has a poor appetite	Usually has a poor appetite

Time Trade-off (TTO)

- Health states evaluated using the time trade-off (TTO) method.
- Patient compared 10 years in health state A (or B or C) to X years in perfect health.
- Sequence of choices identified number of years in perfect health equivalent to 10 years in state A
- TTO utility = X/10
- Clinicians estimated amount of time the patient would give up to gain perfect health

Importance Ratings of Attributes

Imagine that you can select a medicine that will change you health state on only one aspect from the worse to the best level. Which one would you choose first? second? …

bladder and bowel function
fatigue and energy
appetite.
pain
sexual function
mood

Results

- TTO Values
  - means for patients and clinicians
  - patient-clinician agreement
  - test/retest reliabilities
- Attribute Importance Ranks
  - means for patients and clinicians
  - patient-clinician agreement
  - test/retest reliabilities
- Description of patient's own health state

TTO Values

Those with baseline and 3-month data.

Patients

	A	B	C	P
Baseline	0.76	0.48	0.29	0.72
3 Months	0.74	0.45	0.13	0.64

Clinicians

	A	B	C	P
Baseline	0.93	0.73	0.43	0.81
3 Months	0.88	0.72	0.43	0.71

TTO Values

All those with baseline data.

Patients

	A	B	C	P
Baseline	0.73	0.48	0.29	0.67

Clinicians

	A	B	C	P
Baseline	0.88	0.70	0.37	0.80

Correlations Between Patient and Clinician TTO Values

	A	B	C	P
Baseline	-0.02	0.06	-0.01	0.30*
3 Months	-0.05	0.19	0.04	0.04

Test-retest reliabilities

	A	B	C	P
Patients	0.73**	0.53**	0.11	0.59**
Clinicians	0.04	0.07	0.14	-0.02

* $p < .05$, ** $p<.01$

Mean (std) Attribute Importance Ranks

(1 = most important, 6 = least)

	Patients	Clinicians
Pain	2.20 (1.46)	1.70 (0.88)
Bladder/bowel	2.56 (1.37)	3.30 (1.15)
Fatigue/energy	3.70 (1.22)	3.12 (1.10)
Mood	4.01 (1.52)	2.85 (1.67)
Sexual Func.	4.16 (1.84)	5.24 (1.37)
Appetite	4.32 (1.52)	4.81 (1.02)

Spearman Correlations Between Patient and Clinician Importance Ranks

	r
Bladder/bowel	.15
Fatigue/energy	.05
Appetite	.05
Pain	.25*
Sexual Func.	.18
Mood	.15

Test-retest Correlations for Importance Ranks

	Patients	Clinicians
Bladder/bowel	.30	.05
Fatigue/energy	.19	.39*
Appetite	.02	.24
Pain	.23	.27
Sexual Func.	.45*	.02
Mood	.38*	.01

* $p < 0.05$

Patient’s Current Health

Correlations between patient and clinician ratings

Appetite	0.04
Bowel / bladder	0.37*
Energy	0.13
Mood	0.33*
Pain	0.43*
Sex	0.48*

* $p < 0.01$

Patients and Clinicians Do Agree About Clinical Status

- High correlations between patient and clinician ratings of patient's current health on six attributes
- Significant correlation between patient and physician TTO utilities for patient's current health state at baseline

Patients and Clinicians Don’t Agree About Utilities

- Clinician TTO utilities higher than patients’
- Low correlations between patient and clinician TTO utilities for states A, B, and C
- Low correlations between patient and clinician attribute importance weights

Reasons for Disagreement

- Patient TTO utilities more reliable than patients
- Clinicians can judge the average patient's preferences fairly well.
- Can't judge the individualized preferences of a particular patient

Do Clinicians Know Something Patients Don't?