Prostate cancer patients' active role in treatment decisions associated with better decision outcomes, but more difficulty

Caitlin Biddle
Willie Underwood, III
D. Lynn Homish
Heather Orom

Why good treatment decision making is important for prostrate cancer patients?

- Weighing risks and benefits of treatment
- Major lifestyle changes
- Psychological consequences

(Degner & Sloan, 1992)

Which treatment?

1. Prostatectomy (Surgery)*
2. External Beam Radiation Therapy*
3. Brachytherapy
4. Hormone Therapy
5. Cryotherapy
6. Active Surveillance*

Currently no RCT data to assess the effectiveness of one option over the other

(Wilt et al., 2012; Sun et al., 2014, DeSantis el al., 2014)

How to decide?

- AMA recommends shared-decision making

Shared-decision Making:

1. Clinical information
2. Values Clarification
3. Guidance and Communication

What is a “good” treatment decision?

- Informed
- Consistent with preferences/values
- Decision outcomes (conflict, satisfaction, difficulty and regret)

Orom, H., **Biddle, C.**, Underwood, W., III, Nelson, C. J., & Homish, D. L. (March, 2016) What is a 'good' treatment decision? Decisional control, knowledge, treatment decision-making, and quality of life in men with clinically localized prostate cancer. *Medical Decision Making*

(Fowler et al., 2013; O'Connor et al., 2004; Aning et al., 2012; Gwede et al., 2005)

Do patients benefit from active participation in treatment decision making?

- Higher decision satisfaction
- Higher quality of life
- Less decisional conflict

(Kremer et al., 2007; Hack et al., 2006; Fischer et al., 2006)

Purpose of the study

Test whether men's level of involvement in the prostate cancer treatment decision is related to their treatment decision-making experiences

Hypotheses:

1. More involvement associated with less conflict
2. More involvement associated with greater satisfaction
3. More involvement associated with greater difficulty

(Kaplan et al., 2014; Fowler et al., 2013; Gwede et al., 2005)

Procedure

Data from a large multi-site longitudinal study

Participants: men newly diagnosed with clinically localized PCa

- Completed baseline survey and a survey shortly after making treatment decision

Recruiting and Sample

- Recruited from 2 academic, 3 community facilities
- 5202 men were eligible
- 2476 enrolled
- 1654 completed both baseline and treatment decision survey
- Sample = 1529

Measures: Predictor

Decisional control

- Report how much control the patient had over their treatment decision

  1 = My doctor made the decision with little input from me
  2 = My doctor made the decision but seriously considered my opinion
  3 = My doctor and I made the decision together
  4 = I made the treatment decision after seriously considering the opinion of my doctor
  5 = I made the treatment decision with little input from my doctor

- Passive/Collaborative/Active

(Degner & Sloan, 1992)

Measures: Decision-making outcomes

1. Decisional conflict (α=0.89)
   - 16-item Decisional Conflict Scale
   - Higher numbers indicate greater decisional conflict
   - 5 Subscales:
     - Informed
     - Values Clarity
     - Support
     - Uncertainty
     - Effective decision

(O'Connor., 1995)

Measures: Decision-making outcomes

2. Decision-making satisfaction (α=0.87)
   - 4-item adapted Satisfaction with Decision Scale
   - Higher numbers indicate greater satisfaction

   (Holmes-Rovner et al.,1996)

3. Decision-making difficulty (α=0.72)
   - 3-item scale
   - Higher numbers indicate greater difficulty

Covariates

- Education
- Marital status
- Race
- Employment status
- Age
- Perceived social status

Analysis

Multivariable Analysis

- Adjusted multivariable linear regressions were used to test for adjusted associations between decisional control and each decision-making outcome
  - All covariates included in each model
  - Robust standard errors were used

Demographics

- ~60% had a ≥ college degree
- 84% married
- 81% non-Hispanic White
- Mean age = 63.14 (7.89)
- 51% had fulltime employment and 39% retired
- Mean perceived social status = 6.78 (1.67)

Predictor and outcome characteristics

Measure	Mean (SD) or %	Range
Decisional Control		
Active	66.8%	
Collaborative	26.4%	
Passive	6.5%	
Decisional Conflict	8.05 (10.36)	0-100
Decision-making satisfaction	4.55 (0.53)	1-5
Decision-making difficulty	8.71 (2.72)	0-15

Significant adjusted predictors of decisional conflict (N = 1517)

Predictors	b	95 % CI	p-value
Decisional Control			
Collaborative	-4.88	-7.88, -1.88	.001
Active	-6.62	-9.47, -3.78	<.001
Married	-2.81	-4.41, -1.21	.001

Referent groups were: passive and not married

Significant adjusted predictors of decision-making satisfaction (N = 1524)

Predictors	b	95 % CI	p-value
Decisional Control			
Collaborative	0.24	0.12, 0.36	<.001
Active	0.25	0.14, 0.36	<.001
Married	0.11	0.03, 0.19	.010

Referent groups were: passive and not married

Significant adjusted predictors of decision-making difficulty (N = 1515)

Predictors	b	95 % CI	p-value
Decisional Control			
Active	0.72	0.22, 1.22	.005
Married	-0.69	-1.07, -0.31	<.001
Age	-0.06	-0.08, -0.04	<.001

Referent groups were: passive and not married

Factors associated with decisional control (p<.05)

Marital status

- Married, more likely to make decision collaboratively or actively than passively

Employment

- Part-time or retired, less likely to make decision actively than passively

Age

- Older age, less likely to make decision actively than passively

Discussion

- Hypothesized effects confirmed
- Decisional control or patient involvement helps make a “good” decision, but the decision remains difficult

Discussion cont.

- Alternative to “good” decision: Decision making judgments could be based on the need to reduce cognitive dissonance

Implications

- Patients are embracing shared decision-making
- Interventions to support active and collaborative decision making
- Examples: psychosocial support, increased use of decision aids, patient-centered care

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