

# WHAT PATIENT CENTERED OUTCOMES DO PRIMARY CARE CLINICIANS CONSIDER WHEN ORDERING IMAGING TESTS?

---



# AUTHORS AND DISCLOSURES

## Authors:

Victoria Hardy, MSc\*, Monica Zigman Suchsland, MPH\*, Ying Zhang, MD, MPH\*, Patrick Vigil, MD, Kim Collins, MD\*, William Woodhouse, MD†, Roger Chou, MD<sup>0</sup>, Steven Findlay, MPH<sup>◇</sup>, Danielle C. Lavalley, PharmD, PhD\*, Matthew J. Thompson, MD, PhD\*

## Affiliations:

\* Departments of Family Medicine (VH, MLZS, KC, YZ, MJT), Surgical Outcomes Research Center at the Department of Surgery (DCL)

† Idaho State University (WW)

<sup>0</sup> Oregon Health Sciences University (RC)

<sup>◇</sup> Consumers Union (SF)

## Disclosures:

None

# BACKGROUND



- Primary care clinicians are encouraged to use practice guidelines to direct imaging decisions.
- Use of guidelines without considering patients' preferences and values may not translate into appropriate patient care.
- Adopting a patient-centered approach could encourage more personalized trade-offs to be made between the benefits and harms of imaging tests.
- It is unclear how providers reconcile patients' preferences and values, and what patient-centered outcomes (PCOs) clinicians consider important to patients when making decisions about imaging tests.

# METHODS

- Aim: To identify how patients' preferences and values around imaging tests are incorporated into clinical care and the PCOs primary care clinicians perceive to be most meaningful to patients.

Semi-structured interview guide focused on 3 areas:

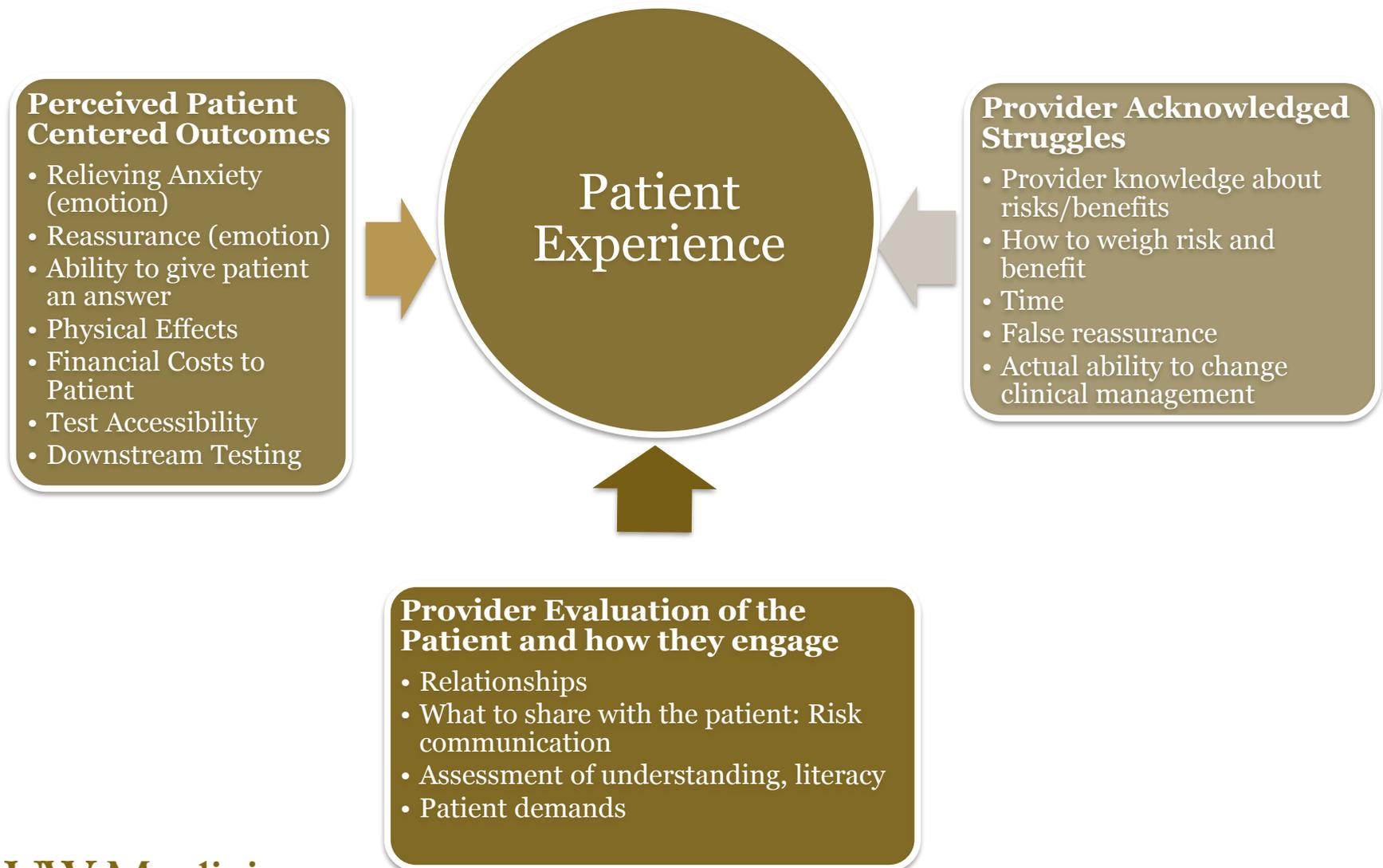
- |   |
|---|
| 1. Offering and appropriate test and discussing it with patients: understanding general reasons why a provider would or would not order an imaging test |
| 2. Reflections on Patient Reported Experiences: provide thoughts and reflections on observations on experiences reported from the PROD study interviews |
| 3. Sharing Results and Feedback Following Testing: delivery pathway of imaging test information AFTER an imaging test                                   |

- Participants recruited from 4 primary-care clinics in Washington and Idaho through the WWAMI region Practice and Research Network, eligible job titles included family physician, internist, family medicine nurse practitioner, or family medicine physician assistant
- Data from interviews was analyzed thematically.

# RESULTS: DEMOGRAPHICS

		<b>N=16</b>
<b>Gender</b>	Female	10 (62.5%)
	Male	6 (37.5%)
<b>Race and Ethnicity</b>	Asian	3 (19%)
	Black or African American	0
	Hispanic or Latino	0
	White	13 (81%)
<b>Provider Type</b>	Nurse Practitioner	2 (12.5%)
	Physician	11 (69.75%)
	Physician Assistant	3 (18.75%)
<b>Year Completed Training</b>	Range	1975-2015
<b>Age</b>	Mean (Range)	45 (29-67)
<b>Clinical Practice Setting</b>	Outpatient	11 (68.75%)
	Both	5 (31.25%)

# RESULTS: THEMES AND SUBTHEMES



# RESULTS: PCP QUOTES

## Downstream Testing

- I think about the psychological impact that the patients undergo, where maybe we're seeing something that's not concerning, but then we put them through additional imaging, and they're wondering "If they want additional imaging it must be really concerning." Maybe even unnecessary biopsies. – PCP 15

## Ability to give patient an answer

- I know a lot of times it's frustrating for patients when something is wrong with them and we do an imaging test and it shows that everything is normal. They're just kind of like, "Well what is going on?" Other times... If we do an imaging test and something's wrong then, "Okay here's the problem. We see it, it's fixable, and this is what we do." ... Hope or some reassurance that they're going to get fixed.– PCP 11

## Reassurance

- It can reassure them, it can scare them, it can frustrate them depending on what they're going ... I mean you think about, I think about back imaging and the frustration when somebody finally gets that MRI and it still doesn't show a reason for their back pain. – PCP 10

# RESULTS: PCP QUOTES

## Relieving Anxiety (emotion)

- Sometimes the patient just wants something for that peace of mind, and they don't really care what the risks and benefits are. They just want to know that they don't have a tumor inside of their stomach. I don't know. I think it has value, but I don't know how important it is, and I have no idea how to measure that. – PCP 14

## Physical Effects

- One of the pediatricians I work with called it "radiation therapy." So just basically the therapy of having something done, and whether it's positive or negative, a lot of times their symptoms will resolve. So I think it's the not knowing and okay now we've found out a little bit something. And then that kind of gives them some peace of mind. – o8

## Financial Costs to Patient

- The con would be cost, even these days people with insurance, whether it's Medicare or private, I mean there's copays, deductibles. I mean, so cost I think is the biggest stress that patients get, would be kind of my gut feeling. – PCP 13

# DISCUSSION

- Primary care providers recognize the main outcomes patients experience through imaging tests
- Providers found it difficult to discuss these outcomes to patients due to varying levels of knowledge and limited time
- There is a need to address a tension between primary care clinicians' knowledge of evidence-based practice, patient preferences and values, patient engagement, and provider time that may prevent clinicians incorporating PCOs into imaging test throughout the imaging test pathway
- Additional research into improving patient understanding about diagnostic imaging tests and how to implement into practice should be a priority

## Acknowledgements:

The authors acknowledge the support and contributions of the PROD Study Team and its stakeholders, study site champions and coordinators, and researchers. We would also like to acknowledge Jessica Cruz for her assistance with data cleaning, as well as our participants whose time and stories made this work possible.

This work was supported through a Patient-Centered Outcomes Research Institute (PCORI) Program Award (ME-1503-29245). This study was also supported by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Number UL1 TR002319.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the views of the Patient-Centered Outcomes Research Institute (PCORI), its Board of Governors or Methodology Committee.

