

Engaging Underserved Patients in Health IT Design: A Technology-Enabled Prostate Cancer Decision Aid For African American Patients



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Introduction

- PCa (Prostate Cancer) **mortality inequity** affects African American men (AAM)
- Black men make **different PCa treatment decisions** when compared to White men with similar risk.
- Use of PCa treatment decision aids (DA) can help **clarify priorities** and improve health literacy.
- Technology-enabled PCa treatment DA show **increased shared decision making** and health literacy, but minority patients are hindered because HIT tends to ignore social and cultural factors known to influence technology use.

Proposing a community-engagement approach involving AA PCa survivors in the design of a PCa treatment DA

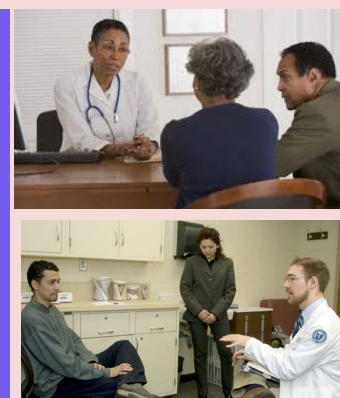
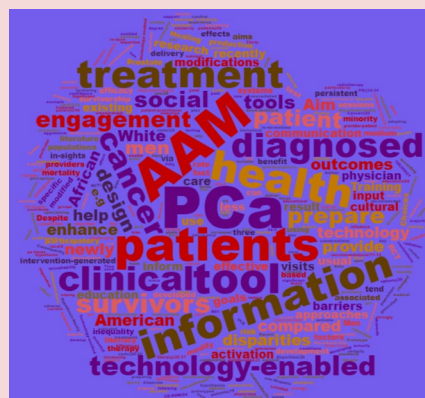
Innovation

Minorities face barriers to technology use
– Participatory Design (PD) can address barriers

- Technology enabled health promotion approaches tend to **ignore social and cultural factors** known to influence effective technology use which contribute to **intervention-generated inequality** – when interventions **disproportionally** benefit majority populations.
- Tools developed using participatory design (PD) can **abate** intervention-generated inequality, and **enhance** engagement, activation and health literacy.

Specific Aims

- **Aim 1: Modify a current tech-enabled decision aid (DA) via input from AAM PCa survivors and create prototype:**
Rationale – AAM PCa survivors have **particular insights** concerning what **health information** and **delivery** medium would help prepare AAM recently diagnosed with PCa for clinical visits. Training Goal: prototype development
- **Aim 2: Conduct a pilot RCT to assess acceptability, feasibility and preliminary efficacy of modified DA:**
Rationale – Use of a culturally-targeted DA will **better prepare** newly diagnosed AAM for clinical visits in which treatment options are discussed. **Outcomes** of interest: 1^o- PCa knowledge, SDM (SDM-Q-9&-DOC - T0) 2^o decisional perceptions (cancer-specific distress & anxiety). Training Goal: RCT design, cancer control
- **Aim 3: Assess effect on behavior during the clinical consultation:**
Rationale – Use of the DA will result in **increased shared decision making**, compared to usual care. **Outcomes** of interest: 1^o- SDM (T1, T2-3mo.), Qual-OPTION Coding Scale), Training Goal: Patient-Clinician communication, SDM



Approach

Tool refined and assessed using Participatory Design (PD)

- **Stage 1: Exploration** - designers familiarize themselves with users and **understand** what information and mediums would support them. Initial step includes discussion of technologies, and information flows.
- **Stage 2: Information Discovery** - designers and users **understand** and **prioritize** information. Enables designers to clarify users' goals and values. Usually involves several users.
- **Stage 3: Assess** - designers and users iteratively **shape technology** to maximize usability and acceptability for circumstances detailed in Stage 2. Involves several users.

Stages are **iterated** several times, and provide an iterative **coexploration** by designers and users.

Approach also informed by health information seeking behavior (HISB)

1. **A health-threatening situation** – health circumstances influence **type** of information, **amount** of information sought, how the information is **obtained**, and when or under **what circumstances** the information is needed in order to help cope with stressful situations.
2. **Participation and involvement in medical decision making** – preferences range from **wanting to be able to understand** health care professionals' decisions about care, to wanting their **views to be heard and considered**, to actually **making** the final decision.
3. **Behavior change and preventive behavior** – information can **influence** judgments, beliefs, and attitudes toward health behavior, the **alternative** courses of action known, and **risk perception** of certain actions and **resources** available to help carry out behaviors.



Expected Findings

- Tool **efficacy** will be evaluated based on: acceptability, usability, information received, and the following validated outcomes:
 - health literacy
 - patient “activation”
 - patient engagement
- Measure tool impact by **comparing outcomes** of experimental group with usual care – **50 AAM** recently diagnosed who have not used the tool.

Research Design

- **Aim 1:** Conduct **3** focus groups with **4 subgroups** (1. AA PCa survivors, 2. AA at risk, 3. PCa survivor spouses/partners, 4. clinicians) for **input on modifications** to existing tool (**Healing Choices for Men with Prostate Cancer**).
- **Aim 2:** Conduct pilot RCT to assess the acceptability, feasibility and preliminary efficacy of the modified DA. **35** recently diagnosed AA use DA for 10 min within 5 days of clinical consultation, compare outcomes to usual care, **35** AA who have not used tool.
- **Aim 3:** Consultations will be audio recorded and coded to assess impact on SDM. Validated coding system will enable SDM measurement. Compare with “usual care”.

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