Cancer Health Disparities Summit
2008

Cancer Navigation Project
National Cancer Institute

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Northwestern University • Jesse Brown VA Medical Center

Jesse Brown VA Medical Center
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Access Community Health Network
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The role of health literacy on patient navigation intensity prior to and post-prostate cancer diagnosis: Preliminary results from the Patient Navigation Research Program in Chicago

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Low-income persons face barriers when attempting to seek cancer diagnostics tests and treatment.

1990, Harold Freeman implemented novel patient navigator program for women with abnormal mammograms, resulting in earlier presentations and better survival.

Identified barriers included lack of insurance, poor social support, coping styles, health beliefs such as fatalism, and poor health literacy skills.
The Chicago Cancer Navigation Project

- created from the Freeman model

- intervention begins at time of abnormal CA screen
Transportation between VA hospitals

Hines VA

Jesse Brown VA
The Chicago Cancer Navigation Project

A REPORT OF PILOT DATA ON HEALTH LITERACY & INTENSITY OF CARE COORDINATION among VETERANS WITH AN ABNORMAL PROSTATE CANCER SCREEN
SPECIFIC AIMS

- To increase the rate of follow-up diagnostic evaluations
- To improve the mean time to a diagnostic resolution between abnormal screening and definitive follow up
- To shorten the time to initiation of treatment following confirmatory diagnostic evaluation
- To identify psychosocial and demographic factors associated with navigation non-compliance
A day in the life of a Patient Navigator (PN)

- Nurse introduces patient to Patient Navigator.
- PN actively monitors electronic medical record in alternate patient room.
- PN waits until doctor calls patient name in waiting room.
- PN screens electronic medical records daily to identify eligible patients.
- PN performs reminder call to patient one day before patient’s scheduled appointment.
- PN reviews status of patient check-in on day of appt: check-in sheet, nurses, patient rooms.
- PN highlights paper check-in sheet to signal eligibility for research.

PN explains program and obtains written informed consent and HIPAA authorization.
Chicago Patient Navigation Model

- Trained VA Patient Navigator team
- American Cancer Society social worker
- Lay health navigators
- Patient and system barriers to follow-up care, length of patient encounters, and case management actions recorded
Prostate Schematic: Estimated intervention times to completion

1. **+ Screen PSA > 4**
   - Initial GU appointment: 2-4 wks

2. **Date of biopsy**
   - 6-8 wks

3. **Biopsy Follow-up appointment**
   - 1-2 wks

4. **Education Class**

   - If path = +, t < 2wks
   - Patient is notified by phone

**Treatment choices**

1. **Surgery**
   - Surgery appointment: 4 wks
   - Surgery Follow-up @ oncology: 2 wks

2. **Radiation Therapy**
   - Radiologist Consult @ Hines: variable
   - RT “fitting” appointment @ Hines: 3 wks
   - 2nd Radiologist Consult @ Hines: 2 wks

3. **Hormone Therapy**

**Time to treatment variable**
<table>
<thead>
<tr>
<th>Table 1. Patient Demographics</th>
<th>All patients n=62</th>
<th>Patients with prostate cancer n=28</th>
<th>Patients without prostate cancer n=34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years old)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>65</td>
<td>66</td>
<td>65</td>
</tr>
<tr>
<td>Median</td>
<td>64</td>
<td>66</td>
<td>63</td>
</tr>
<tr>
<td>Range</td>
<td>54-78</td>
<td>54-78</td>
<td>56-78</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>30 (48)</td>
<td>8 (29)</td>
<td>22 (65)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>27 (44)</td>
<td>16 (57)</td>
<td>11 (32)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4 (6)</td>
<td>3 (11)</td>
<td>1 (3)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (2)</td>
<td>1 (4)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>27 (44)</td>
<td>15 (54)</td>
<td>12 (35)</td>
</tr>
<tr>
<td>Not married</td>
<td>35 (56)</td>
<td>13 (46)</td>
<td>22 (65)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $19,000</td>
<td>27 (44)</td>
<td>12 (43)</td>
<td>15 (44)</td>
</tr>
<tr>
<td>$20,000 - $39,000</td>
<td>18 (29)</td>
<td>9 (32)</td>
<td>9 (26)</td>
</tr>
<tr>
<td>$40,000 or more</td>
<td>16 (26)</td>
<td>7 (25)</td>
<td>9 (26)</td>
</tr>
<tr>
<td>Not reported</td>
<td>1 (2)</td>
<td>0 (0)</td>
<td>1 (3)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>3 (5)</td>
<td>2 (7)</td>
<td>1 (3)</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>20 (32)</td>
<td>9 (32)</td>
<td>11 (32)</td>
</tr>
<tr>
<td>Some college/associate degree</td>
<td>17 (27)</td>
<td>12 (43)</td>
<td>15 (44)</td>
</tr>
<tr>
<td>College graduate or higher</td>
<td>12 (19)</td>
<td>5 (18)</td>
<td>7 (21)</td>
</tr>
<tr>
<td>Literacy</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8th grade</td>
<td>32 (44)</td>
<td>15 (54)</td>
<td>17 (55)</td>
</tr>
</tbody>
</table>

*These data include patients who received a definitive cancer diagnosis. Demographic data from patients who have not yet had a biopsy (n=15), whose biopsies are unresolved (n=9), or who have dropped from the study (n=4) are not reported.*
RESULTS

- 62 patients received definitive prostate cancer diagnosis

- 11 of 62 began treatment for prostate cancer

- 78% had a high school education or greater; 44% had a health literacy level of ≤8th grade

- A mean of 75 days elapsed between diagnosis and treatment initiation (3 RP, 3 HRT, 2RT; 2 chose to watch and wait)
RESULTS

- Navigators spent two-fold time interfacing with patients with prostate cancer, including greater median in-person encounters and twice as many phone encounters as prostate patients with elevated PSA (n=27; p=0.002, 0.008, and 0.001, respectively)

- Differences in navigation provision time between those patients with high versus low literacy was insignificant

- Patient Navigators’ most common case management actions included providing emotional support and appointment reminders
Table 2. Navigation intensity for patients undergoing prostate cancer screening and treatment

<table>
<thead>
<tr>
<th></th>
<th>N (%)</th>
<th>Median navigation time per patient in minutes (SIQR)</th>
<th>Median encounters per patient (SIQR)</th>
<th>Median in-person encounters per patient (SIQR)</th>
<th>Median phone encounters per patient (SIQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>27 (100)</td>
<td>95 (27.5)</td>
<td>8 (2.5)</td>
<td>3 (0.5)</td>
<td>6 (3)</td>
</tr>
<tr>
<td>Cancer patients</td>
<td>5 (19)</td>
<td>200 (37.5)*</td>
<td>14 (4.5)*</td>
<td>4 (1)*</td>
<td>9 (4)*</td>
</tr>
<tr>
<td>pre-diagnosis</td>
<td>5 (19)</td>
<td>65 (10)</td>
<td>5 (0.5)</td>
<td>1 (0.5)</td>
<td>2 (1)</td>
</tr>
<tr>
<td>post-diagnosis</td>
<td>5 (19)</td>
<td>135 (35)</td>
<td>10 (1)</td>
<td>2 (1)</td>
<td>8 (1)</td>
</tr>
<tr>
<td>Non-cancer patients</td>
<td>22 (81)</td>
<td>88 (20)</td>
<td>7 (1)</td>
<td>3 (0.5)</td>
<td>5 (1.5)</td>
</tr>
</tbody>
</table>

* = statistically significant (P<0.05); SIQR = semi-interquartile range
<table>
<thead>
<tr>
<th>Major barriers to follow-up</th>
<th>VA Patient Navigator interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic-patient miscommunication</td>
<td>Monitor patients’ schedule to eliminate clinic-patient miscommunication or errors</td>
</tr>
<tr>
<td>Non-compliance with biopsy-preparatory instructions</td>
<td>Perform additional phone reminders coupled with biopsy preparatory education</td>
</tr>
<tr>
<td>Uncertainty and/or fear</td>
<td>Patient support and counseling</td>
</tr>
</tbody>
</table>
Health Literacy

- Nearly 90 million Americans, or 36% of the adult population have inadequate health literacy

- 66% of Hispanics and 58% of African Americans score in the basic or below-basic levels
Health Literacy

- The degree to which individuals can:
  - obtain
  - process
  - understand the basic health information and services they need to make appropriate health decisions
REALM-7: Rapid Estimate of Adult Literacy in Medicine
IMPLICATIONS

- Improved health literacy is a key to effective screening and treatment of cancer

- Health literacy was not a significant indicator of increased navigation intensity for this pilot cohort
Future studies should customize delivery of cancer care services for patients with low literacy and follow-up compliance.
Collaborators

- Charles Bennett, MD PhD MPP
- Elizabeth Calhoun, PhD
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- Melissa Simon, MD MPH
- Joseph Feinglass, PhD
- Raymond Massenburg, PhD
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