

***Slippery Slope of Patient-Physician  
Communication: Health Practices of Breast  
Cancer Patients After Primary Treatment***



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# Research Team

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# **Background**

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- **Patients Differ In:**
  - **Desire for information about primary treatment and follow-up care**
  - **Ability to get information during medical appointments**
  - **Ability to ask questions, express concerns, state preferences** (Gordon et al., 2006)
  
- **African Americans report receiving less information and participatory decision-making during medical appts than Caucasians** (Kaplan et al., 1995; Royak-Schaler et al., 2002; Cooper-Patrick et al., 1999)

# **Background**

Institute of Medicine (2006)

- **Recommends that physicians provide the following information to cancer patients:**
  - **Stage of disease, treatments received, and risk of recurrence;**
  - **Screening guidelines, based on risk;**
  - **Effects of primary treatment, e.g. lymphedema, depression;**
  - **Available community support groups and services;**
  - **Plans of care, tailored to reduce individual risk of recurrence in the context of lifestyle and culture.**



# **Research Questions**

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- **Do physicians deliver IOM Guidelines to cancer patients ?**
- **Which patients are most likely to receive this information ?**
  - **Demographics (race, education, income)**
  - **Family history**
  - **Co-morbidities;**
  - **Recurrence concerns**

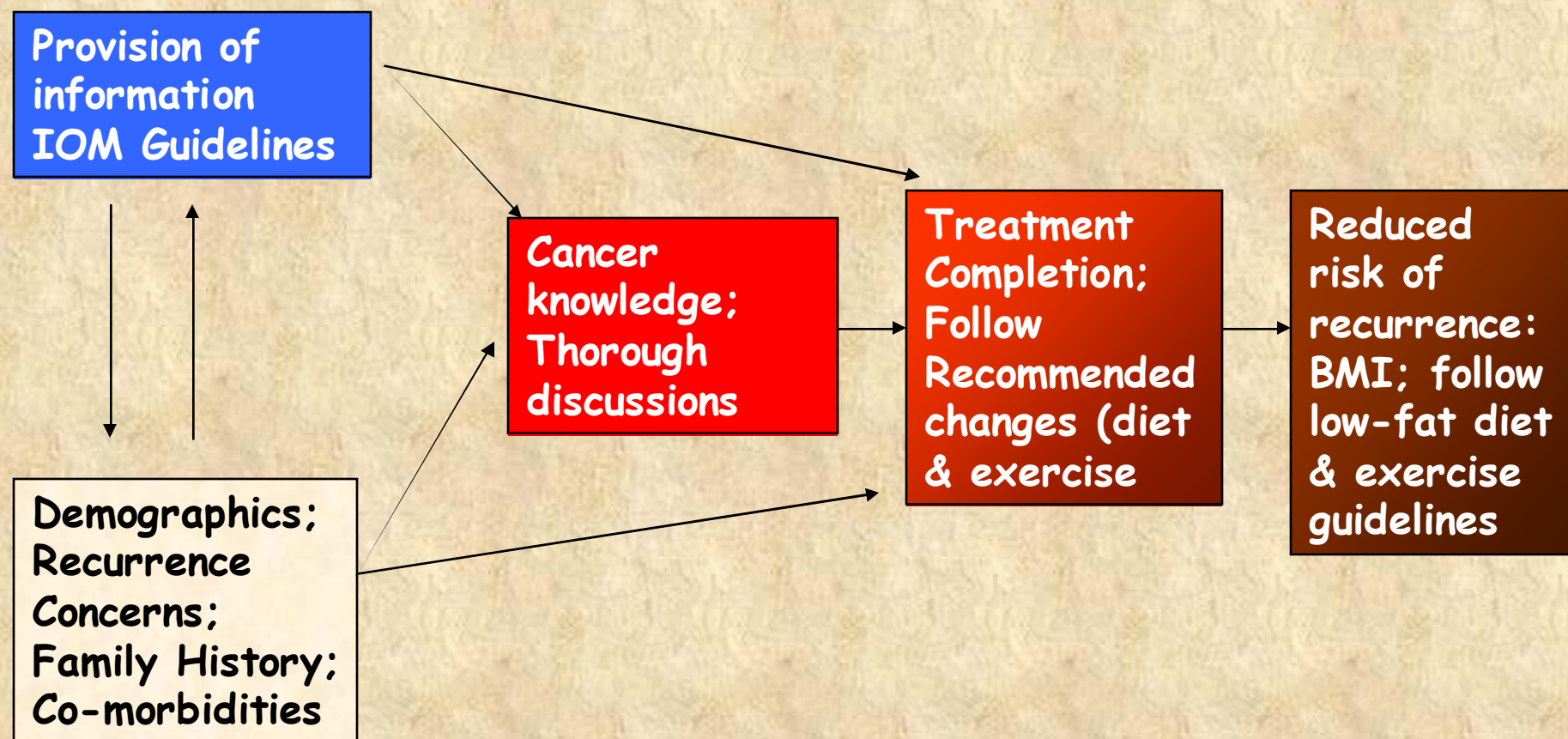
# **Research Questions**

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- **Do patients who report discussions about IOM Guidelines:**
  - **Follow screening guidelines**
  - **Complete cancer treatments**
  - **Follow recommended changes in diet and exercise**
  - **Demonstrate lower levels of cancer concerns**



# Goal: Investigate relationships between communication and follow-up care in AA and Cau patients with breast cancer



# **Procedures**

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- **Cross sectional study**
- **15-minute, telephone interviews**
- **Incentives: \$15 gift certificates**
- ***Inclusion criteria:***
  - **35 to 70 years old.**
  - **Primary breast cancer, no recurrence.**
  - **African American or Caucasian.**
  - **Treated at UMGCC or BWMC**
  - **Completed surgery & primary treatment between 1/2001 and 12/2005.**



# **Hypotheses**

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- **Patients who report discussions about IOM Guidelines will be more likely to:**
  - **Follow screening guidelines**
  - **Complete cancer treatments**
  - **Follow recommended changes in diet and exercise**
  - **Demonstrate lower levels of cancer concern about recurrence**

# **Hypotheses**

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- **Physicians are more likely to discuss IOM Guidelines with cancer patients who report:**
  - **Higher education and income;**
  - **Family histories of breast cancer**
  - **Co-morbidities**
  - **Greater recurrence concerns**

# Measures

- **Patient data**
  - **Demographics, BMI, co-morbidities**
  - **Discussion of IOM Guidelines**
  - **Concerns about recurrence**
  - **Follow-up surveillance**
  - **Diet**
  - **Physical Activity**



# **Measures**

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## **IOM Guidelines**

### ***Physician Discusses:***

- **Type of surgery received**
- **Stage of breast cancer**
- **ER receptor status**
- **PR receptor status**
- **Referral to medical oncologist**
- **Types of treatment**
  - **Radiation Therapy**
  - **Chemotherapy**
  - **Hormonal Therapy**
- **Post-treatment symptoms**
- **Changes in diet and exercise to reduce risk**

**IOM Scale: range 0-10, mean=7.8, SD=1.7**



# Measures

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## *Cancer Recurrence Concerns*

- Compared to most women your age who have had breast cancer, what do you think the chances are that you will have a recurrence someday?
- During the past month, how often have you thought about your own chances of developing a breast cancer recurrence.
- How worried are you about the chance that you might get a breast cancer recurrence some day?

Scale: range 0-12, mean=4.0, SD=3.0

Cronbach Coefficient Alpha for concern scale: raw =0.69, standardized =0.70.

# Demographic Characteristics

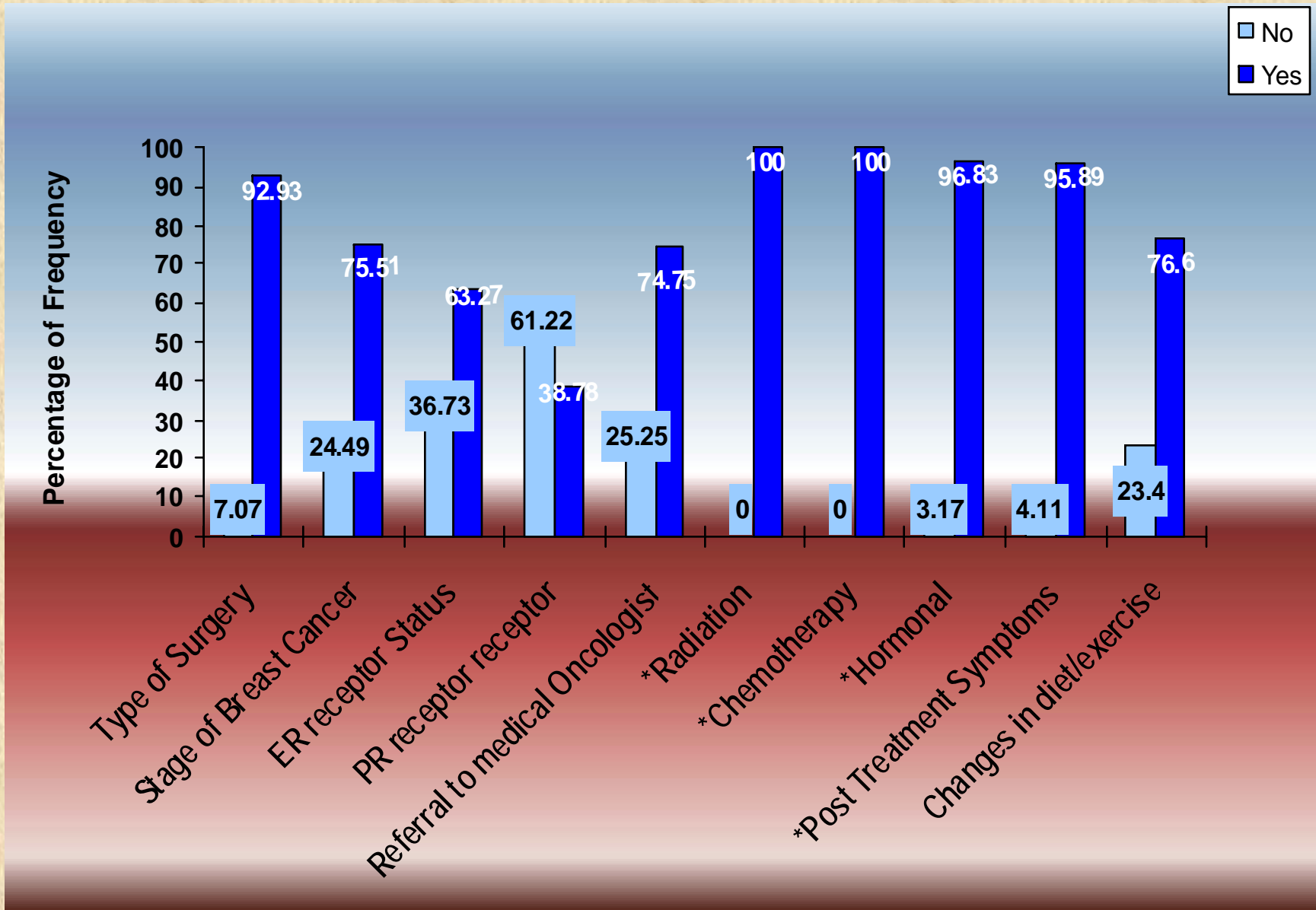
Characteristic	AA (N=30)	Cau (N=69)	P-value
Current Age (yrs), <i>Mean (SD)</i>	55.4 (10.9)	59.8 (9.7)	0.064
Age at Diagnosis (yrs), <i>Mean (SD)</i>	51.6 (11.3)	56.9 (9.9)	0.033
Body Mass Index (Kg/m <sup>2</sup> ), <i>Mean (SD)</i>	31.8 (9.2)	28.3 (5.2)	0.019
Income >30K, <i>Count (%)</i>	18 (60.0)	60 (87.0)	<0.001
Married, <i>Count (%)</i>	6 (20.0)	45 (65.2)	<0.001
>= Some College, <i>Count (%)</i>	14 (46.7)	37 (53.6)	0.66
Employed Full Time, <i>Count (%)</i>	5 (16.7)	18 (26.0)	0.44
Health Insurance, <i>Count (%)</i>			
None	1 (3.3)	0 (0)	0.051
Medicaid	4 (13.3)	2 (2.9)	
Medicare	9 (30.0)	17 (24.6)	
Private	15 (50.0)	49 (71.0)	
Other	1 (3.3)	1 (1.4)	

# Comorbidities

Characteristic	AA (N=30)	Cau (N=69)	P-value
Diabetes, <i>Count (%)</i>	8 (26.7)	5 (7.2)	0.019
Hypertension, <i>Count (%)</i>	13 (43.3)	22 (31.9)	0.36
Heart Disease, <i>Count (%)</i>	3 (10.0)	2 (2.9)	0.16
Arthritis, <i>Count (%)</i>	5 (16.7)	17 (24.6)	0.44
Osteoporosis, <i>Count (%)</i>	1 (3.3)	8 (11.6)	0.27

\*Categorical variables, Fisher's exact or Chi-square tests;  
Continuous variables, Wilcoxon Rank-sum or *t* tests.

# IOM Guidelines Measures



*\* Less than 75% of participants responded to these questions*



# IOM Guidelines Discussion

Variable	Mean (SD)	P-value
Race AA Caucasian	7.7 (1.9) 7.9 (1.3)	0.53
Income >30K <=30K	8.3(1.7) 7.2 (1.8)	0.009
Education <= High school degree >= Some college	7.4 (1.9) 8.2 (1.5)	0.01
Family History No Yes	7.9 (1.7) 7.6 (1.9)	0.54
Co-morbidities No Yes	8.0 (1.7) 7.7 (1.8)	0.46
Recurrence Concerns <4 ≥ 4	7.2 (1.7) 8.3 (1.6)	0.001
Recurrence Concerns (correlation)	0.31	0.002

# *IOM Guidelines Discussion*



## *FINDINGS*

- **No significant difference in IOM Discussion for African Americans and Caucasians**
- **Patients with higher incomes and more education reported more IOM Discussion**
- **Patients with greater recurrence concerns reported more IOM Discussion**
- **Recurrence concerns significantly correlated with IOM Discussion**

## Associations between **IOM Guidelines Discussion** and following screening guidelines and treatment plans

Variable	Column Percent in IOM score<8 Group (N=49)	Column Percent in IOM Score>=8 Group (N=50)	P value
Mammogram <6 months	<b>58.3%</b>	<b>50.0%</b>	<b>0.36</b>
Breast Exam <6 months	<b>63.3%</b>	<b>79.6%</b>	<b>0.07</b>
Following Treatment Plans some times or always	<b>93.9%</b>	<b>86.0%</b>	<b>0.19</b>
Following recommended changes in diet	<b>40.4%</b>	<b>74.0%</b>	<b>0.0008</b>
Following recommended changes in exercise	<b>43.5%</b>	<b>57.1%</b>	<b>0.18</b>
Cancer concerns Score < 4	<b>61.2%</b>	<b>32.0%</b>	<b>0.004</b>

# ***IOM Guidelines Discussion***

## ***FINDINGS***

- **More IOM Discussion associated with following recommended dietary changes**
- **Patients with less concern about recurrence reported less IOM Discussion**
- **More IOM Discussion marginally associated with clinical breast exam frequency**



# Recurrence Concerns

Behavior	Recurrence Concerns <i>Mean (SD)</i>	P-value
Follow Doctor's Treatment Plans: Always (N=8) < Always (N=90)	3.9 (2.9) 3.5 (2.6)	0.92
Follow Doctor's Rec. Diet Changes: All of the time (N=36) < All of the time (N=60)	3.5 (2.6) 4.0 (3.0)	0.38
Follow Doctor's Rec. Exercise Changes: All of the time (N=18) < All of the time (N=77)	2.8 (2.6) 4.1 (2.9)	0.078

# Recurrence Concerns

Behavior	Recurrence Concerns <i>Mean (SD)</i>	P-value
Time Since Last Mammogram: < 6 Months (N=50) >= 6 Months (N=46)	4.2 (2.8) 3.4 (3.1)	0.21
Time Since Last Breast Exam by Physician: < 6 Months (N=69) >= 6 Months (N=28)	3.9 (2.9) 3.6 (2.9)	0.66

Wilcoxon Rank-sum or *t*-tests.

# Conclusions

## Challenges for patients and physicians



- **Focus on delivering IOM Guidelines to disadvantaged patients, those with lower incomes and education**
- **Ways to deliver information and guidelines to promote quality of life and reduce risk of recurrence**