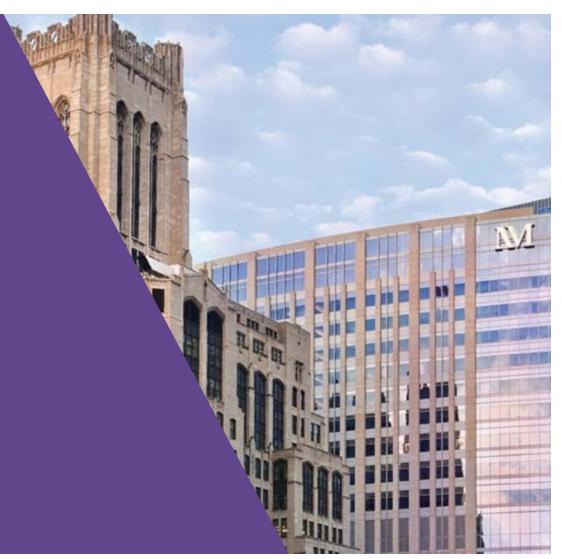






Relevant Disclosure(s)

Consultant for Blue Note Therapeutics



Presentation Outline

- Disparities in cancer control and survivorship
- How are we intervening: Improving outcomes among diverse patients
 - Using health information technologies to improve
 - Psychosocial outcomes
 - Symptom management
- Translational behavioral medicine for cancer control & survivorship

Disparities in Breast Cancer

- Despite improvements in cancer screening and treatments, not all patients are benefitting equally
- Hispanic/Latinx patients with breast cancer
 - Less likely to be diagnosed with localized breast cancer
 - Diagnosed 10 years younger than non-Hispanic Whites
 - Have greater rates of adiposity when compared to non-Hispanic Whites

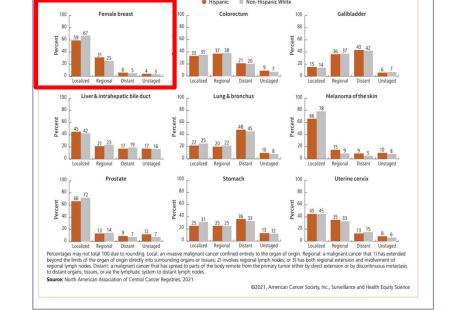
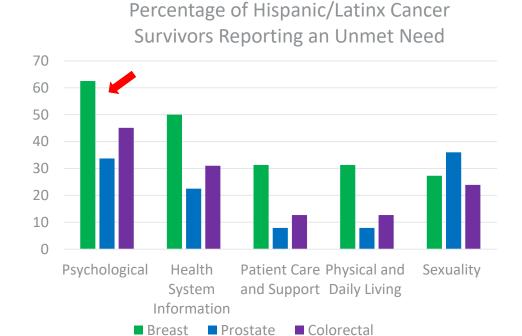


Figure 5. Stage Distribution for Selected Cancers in Hispanic and Non-Hispanic White People, 2014-2018

Unmet Needs Among Hispanic/Latinx Survivors

- Hispanic/Latinx cancer survivors continue to report high levels of unmet needs
- Unmet needs were associated with
 - lower patient-provider communication selfefficacy
 - Lower satisfaction with cancer care
 - Higher cancer-specific symptom burden and poorer health-related quality of life





Psychosocial Issues in Breast Cancer

Pre-Diagnosis

Active Treatment Metastatic Cancer

Survivorship

Cancer Continuum

Emotional
Well-being
and Disease
Symptoms
and Concerns

Treatment Symptoms and Concerns

Late Effects & Quality of Life

Considerations for Hispanic/Latinx Patients

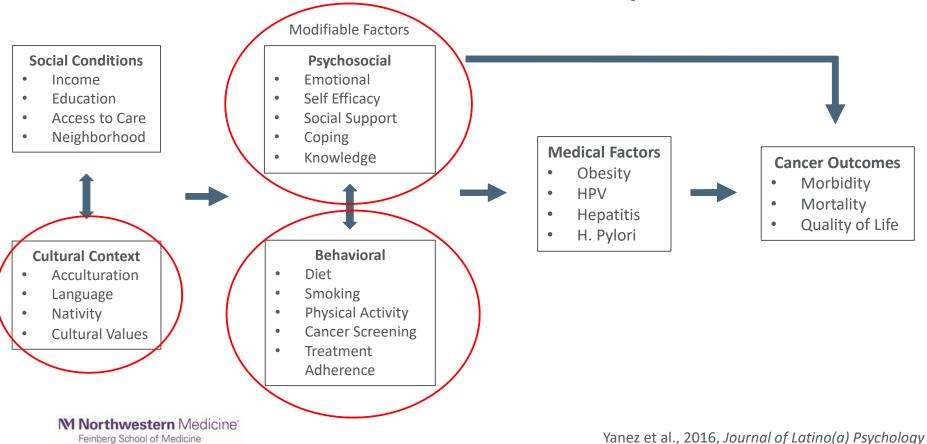
- **Patient-Reported Outcomes**
 - Low satisfaction with care
 - High levels of unmet cancer-related needs
 - Poorer health-related quality of life

- **Sociocultural Factors**
 - Language
 - Immigration concerns
 - Illness beliefs and stigma about disease
 - Family concerns
 - Racism

Financial & Structural Factors

- Insurance
- Access to care
 - Time off work
 - Lodging
 - Transportation

Determinants of Cancer Health Disparities Model



Lurie Cancer Center Symptom Screening: C-PRO

- CoC and other leading organizations recommend routine screening
- Routine screening identifies symptoms that can go under-reported
- Screening completed via MyChart using the Patient-Reported Outcomes Measurement
 Information System (PROMIS)







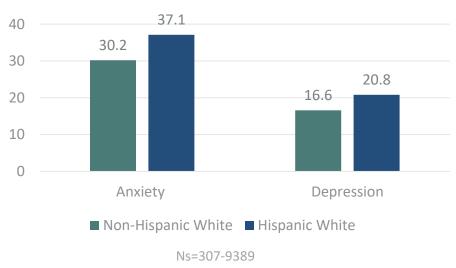




Garcia et al., 2019 in *Cancer*Pearman et al., 2015 J. of Community Support Oncology

Prevalence of Hispanic/Latinx Elevated Symptoms





- In in well-resourced cancer centers 1 fulltime psychologist to every 2,523 newly registered patients every year in NCCN centers
- Shortage of mental health professionals, especially in Spanish





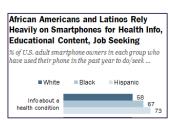


https://usafacts.org/articles/over-one-third-of-americans-live-inareas-lacking-mental-health-professionals Melton et al., 2020 in JCO Oncology Practice

How Are We Intervening? Addressing Symptoms and Emotional Well-Being

- Most cancer survivors have favorable attitudes about healthinformation technologies
- Using health-information technologies can enhance reach of patient-centered care
- Three projects to improve outcomes among diverse patients
 - My Guide for Breast Cancer Survivors
 - Northwestern Medicine IMPACT
 - Northwestern Medicine and UM Health Well-Being Guide









My Guide & My Health for Symptom Management

Select My Guide Features

Available across multiple platforms

Tailored reinforcement messages

Stress management & relaxation exercises

Survivor **stories** and local community **resources**

Educational **videos** on treatment side effects & coping with cancer

Remote symptom monitoring

Stepped-care telecoaching protocol

Cultural Considerations

- Available in English and Spanish
- All content is audio accessible
- Recipes for Hispanic/Latin cuisine
- Salsa for physical activity
- Recognition of strong family ties and immigration concerns

nporary Clinical Trial

- Resources specifically for Hispanic/Latina women









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Application Usage & Findings

	My Guide			My Health		
App Usage (minutes)	Mean	SD	Range	Mean	SD	Range
Total usage weeks 1-6	519.49	396.506	0-1612	436.82	375.426	0-1551
Average usage weeks 1-6	86.58	66.084	0-269	72.80	62.571	0-259

- Breast cancer-related symptom burden decreased from baseline to post-intervention (*p*<.05).
- Breast cancer HRQoL improved from baseline to post-intervention (p<.05).



My Health	Clicks, n	% of total clicks	
Healthy Eating	1,658	20.93%	
Eat Well	1,721	21.72%	
Exercise	1,465	18.49%	
Preventing Diabetes & Heart Disease	501	6.32%	
Lifestyle Behaviors	1,043	13.16%	
Doctor's Recommendations	1,054	13.30%	
Media	409	5.16%	
Total	7,851		
My Guide	Clicks, n	% of total clicks	
Managing My Emotions	1,643	25.88%	
Managing My Symptoms	963	15.17%	
Managing My Health	802	12.63%	
Breast Cancer Medications	318	5.01%	
Family and Friends	608	9.58%	
Community and Everyday Support	685	10.79%	
Listen and Learn (Media)	1,330	20.95%	
Total	6,349		

Baik, Yanez, Buscemi et al., JMIR

My Guide for Endocrine Therapy Adherence

Determinants of early discontinuation of **endocrine/hormone therapy**

- Endocrine symptoms (HR=1.70, 95% CI 1.06-2.74)
- Physical well-being (HR=2.12, 95% CI 1.30-3.45)
- Social well-being (HR=1.94, 95% CI 1.20-3.13)
- Depression (HR=1.82, 95% CI 1.19-2.77)

Improving modifiable risk factors such as HRQoL may reduce medication early discontinuation

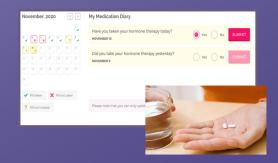
Black, Hispanic, and non-Hispanic Whites report endocrine/hormone therapy side effects are common reasons for early discontinuation

AMA Oncology | Original Investigation
Association of Modifiable Risk Factors With Early Discontinuation
of Adjuvant Endocrine Therapy
A Post Hoc Analysis of a Randomized Clinical Trial
Bears were not their 16th Post No. 18th Analysis of the Analysis of t

Pilot Trial in English and Spanish in Chicago & New York

Intervention Content in 2 Languages

- Managing side effects
- Improving physical well-being
- Enhancing social support
- Overcoming barriers to adherence
- Behavioral reinforcement
- Coping during survivorship



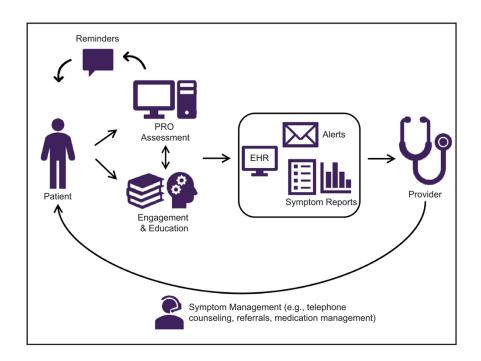
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Yanez et al., ASCO 2020/ Yanez el al JAMA Oncology, 2021 https://dailynews.ascopubs.org/do/10.1200/ADN.20.200202/full/

Health System Integrated Patient-Centered Care

Electronic Health Record Integrated PROs Completed on Computer or Smartphone







MY NM Care Corner

- Web-based intervention to improve selfmanagement
- Patients receive a personalized dashboard with feedback on elevated symptoms and patient education

Electronic Health Record Integrated PROs Completed on Computer or Smartphone















Dashboard > ... > Diet & Nutritio

ADD TO FAVORITES 🛡

Managing Weight

Betina







NCI UM1 CA233035 PI David Cella, Unit-Leads Sofia Garcia, Justin Smith, Frank Penedo, Mike Bass, Denise Scholtens, & 16 Betina Yanez

Integrated Bilingual Web-Based Depression & Anxiety Care

- Improve depressive symptoms and anxiety among patients and survivors of cancer
- Patients with mild to moderate elevated symptoms randomized to receive *My Wellbeing Guide* or usual care
- Patients with severe symptoms will also be triaged to supportive care
- Oncology clinicians can directly refer patients into the study through EPIC











The Work Continues

Ensuring equity in access

- Increasing diversity in the oncology workforce and research
- Tailoring interventions to target communities
 & populations
- Ensuring patient portals are available in multiple languages
- Minimizing barriers to patient education and clinical trial enrollment











Taylor, Yanez , Simon et al., in *Progress in Community Health Partnerships*, 2020 Kronenfeld...Yanez in *The Oncologist*, 2021 Ramsetty et al., in *JAMIA*, 2020

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