Cardiac Rehabilitation for Breast Cancer Survivors

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- Born and raised in CA
- Duke for Biomedical Engineering and MD
- Residency at MGH (Boston), Cardiology Fellowship at UCSF
- See general cardiology patients
- Study new delivery models for cardiac rehab, digital health
Research suggests that exercise and lifestyle programs can help breast cancer patients

- Improved exercise capacity
- Improved patient-reported outcomes
- Possibly:
  - Lower risk of cardiovascular events
  - Improved cardiovascular risk factors
Cardiac Rehab (CR) is a multi-component program:

- Physical activity
- Healthy eating
- Tobacco cessation
- Medication adherence
- Psychosocial wellness
Cardiac rehab is beneficial

26% decrease in cardiovascular mortality (coronary heart disease)

18-30% decrease in hospitalizations

Increased quality of life

Cochrane Database Syst Reviews. 2016, 2019
Can we translate cardiac rehab to breast cancer survivors?
HEART-ACT

HEART Health After Cancer Treatment

Breast Cancer Survivors at San Francisco General Hospital

- Phase 1 (current)
  - Interviews with 30 people
  - Human-centered design sessions
  - English, Spanish, Cantonese

- Phase 2 (2023)
  - Pilot 12-week intervention
  - 50 people
Principles

- Individualized
- Address health behaviors that patients can manage
- Meet patients where they are
After I become aware of the benefits of exercise, I feel that it’s quite beneficial to physical and mental health, and my body health has also improved. ... Previously I didn’t do exercise. After doing exercise, it helps me a lot.
Not everyone can withstand such exercises. It varies from person to person. I have worry too. Some people aren’t suitable for such exercises, if they do exercise with difficulty, then something wrong will happen to their body.
I do my best to eat right. And I know I had a pretty good idea of what is bad for us and what isn't. And I've seen the list of cancer causing foods, donuts, French fries, bacon, cookies. And I enjoy cooking. So it just exploring recipes, techniques of healthy food that would be enjoyable. And learning how to feed myself properly. That's essential to healing.
Summary: consensus so far…

- Multi-disciplinary program needed and wanted

- Structure/delivery of program
  - In-person and group preferred by some but Zoom/virtual has convenience
  - Professional speakers
  - Language concordant
  - Support for overcoming barriers (e.g., taxi vouchers)

- Content
  - Topics: Physical activity, Nutrition, Mental wellbeing, Cardiovascular risk factors, Survivorship, Other
  - Physical activity/exercise
    - Part of daily life/routine
    - Address limitations, safety and fear of doing too much/too strenuous
  - Nutrition: practical – recipes, shopping lists
Overall Patient Journey Map

Referral
Intake (in-person)
G = Group Education (in-person)
I = Individual Counseling (in-person or virtual)
E = Exercise (on own or at gym)
Graduation (in-person)
Each item will have an individualized assessment, goal, and plan.
Next steps

- Complete Human-Centered Design Sessions (2022)
- Begin Phase 2 – Pilot Study in 50 patients (early 2023) at ZSFG
Questions?
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Extra Slides
Breast Cancer & Cardiovascular (CV) Risk

- Health and Risk Factors
- Breast Cancer Diagnosis
- Toxic Therapy
- Health Behaviors
- CV Injury
- CV Disease
Breast Cancer & Cardiovascular (CV) Risk

Health and Risk Factors → Breast Cancer Diagnosis → Toxic Therapy → Health Behaviors → CV Injury → CV Disease

Intervention