

Breast Cancer Health Literacy and Barriers to Mammography in a Stratified Cohort of Comprehensive Community Action Program Patients



Author: Markaila Farnham, Brown University ScM in Medical Sciences
Mentors: Nicholas Lutzel¹ and Dr. Therese Zink²

Affiliations: ¹Comprehensive Community Action Plan ²Warren Alpert Medical School of Brown University



Background

- In the U.S., breast cancer is the most common lethal cancer in women.¹
- Early detection of breast cancer leads to higher survival rates.²
- Studies in Rhode Island have shown that widespread mammographic screening has been associated with a 57% decrease in disease-specific mortality between 1987 and 2017.³
- At CCAP, there is speculation that individuals who are not timely with screening have lower health literacy scores, which may correspond with general socioeconomic status.

Objectives

- Measure functional understanding of breast cancer among CCAP patients who are eligible for mammography.
- Identify weaknesses in patient education concerning breast cancer and uncover barriers to getting mammograms.

Methods

Literature Review

Evaluated national breast cancer data, Rhode Island breast cancer data, and best practices.

Phone Survey (n=200)

Initial population included women 52-74 years of age by the end of the measurement period (1/2022-12/2022) with a visit during the measurement period. Women were assigned value of "Pass" or "Fail" for completing or not completing at least one mammogram since 10/2019. Patients were contacted by phone, and if agreed, consented, and were given a verbal health literacy assessment.

Instrument

Breast Cancer Literacy Assessment Tool (B-CLAT),⁷ 34 questions, and inquired about 1) Participants' observed barriers to completing breast cancer screening. 2) Possible areas of improvement regarding clinician-to-patient education about breast cancer.

Results

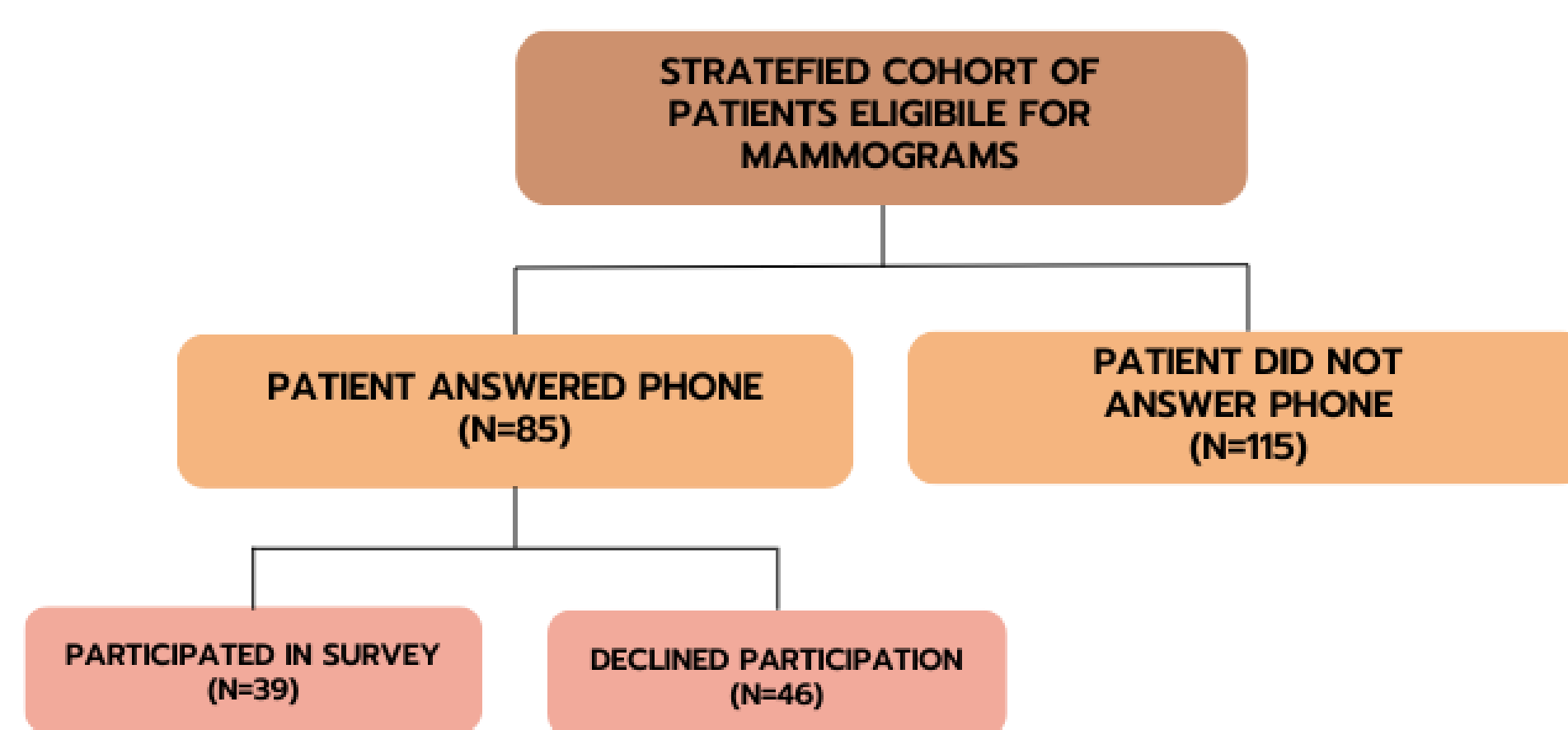


Figure 1. Phone contact tree: responders and non-responders.

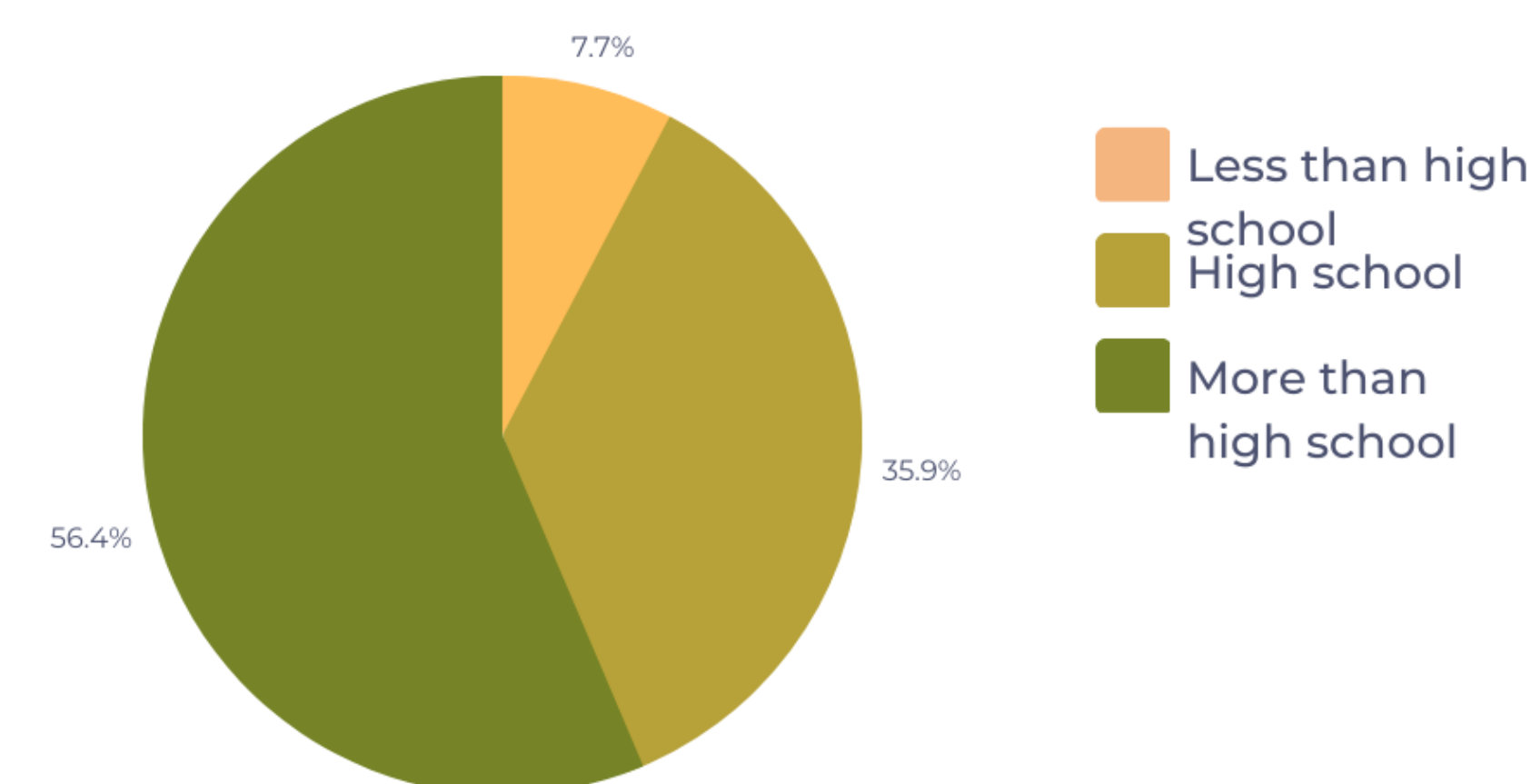


Figure 2. Survey respondents (n=39) and education level.

B-CLAT QUESTION #	CATEGORY	QUESTION THEME
B-CLAT 2	Awareness	How life-threatening is BC
B-CLAT 4	Awareness	Can wearing certain bras lead to BC
B-CLAT 5	Awareness	Size of breasts and risk
B-CLAT 6 *	Awareness	Breastfeeding and reduction of risk
B-CLAT 13	Knowledge & Screening	Who does a mammogram
B-CLAT 14	Knowledge & Screening	Frequency of mammograms
B-CLAT 18	Knowledge & Screening	Who needs to get mammograms
B-CLAT 20	Prevention & Control	Yearly screenings and BC survival
B-CLAT 22	Prevention & Control	Lump under arm
B-CLAT 23	Prevention & Control	Family BC history and when to start mammograms
B-CLAT 26 *	Prevention & Control	Excess body weight and increased risk
B-CLAT 29	Prevention & Control	How to reduce risk of BC
B-CLAT 30	Prevention & Control	Do vitamins help prevent BC
B-CLAT 31	Access	Resources for BC screening for uninsured
B-CLAT 32	Access	Where to get BC screening for insured
B-CLAT 34 *	Access	Helping others access BC screening program

PASS
Thinks CCAP does a great job
Curious about how to get family members involved in breast cancer screening program
Wants education on risk factors for breast cancer
FAIL
Wants education on risk factors for breast cancer
Concern about transportation to and from appointments and spending enough time with clinicians during appointment
Concern about not being able to consistently see a female clinician

Table 1. Breakdown of key survey questions and categories.

Table 2. Common feedback among survey respondents by Passed (n=27) or Failed (n=12) measures.

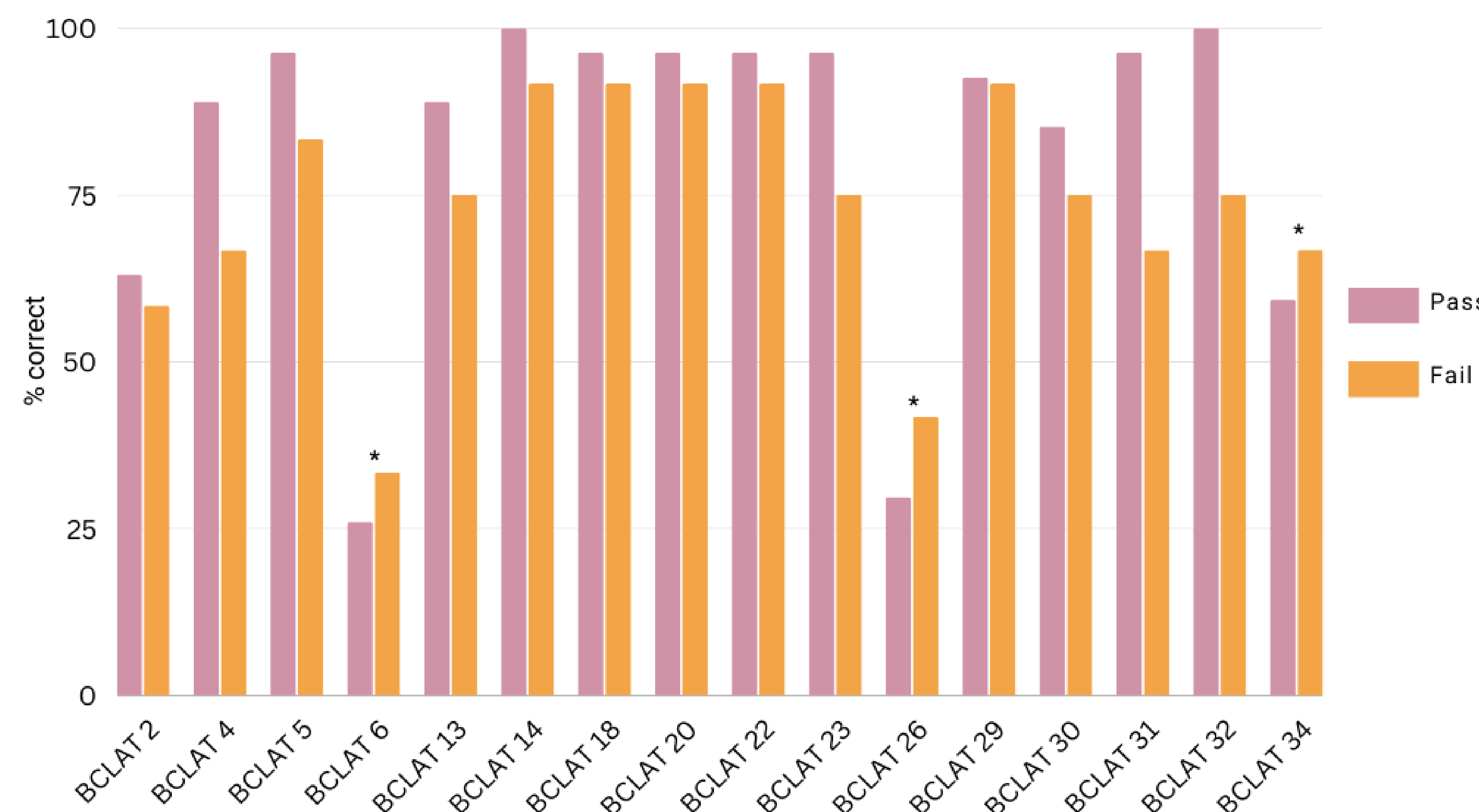
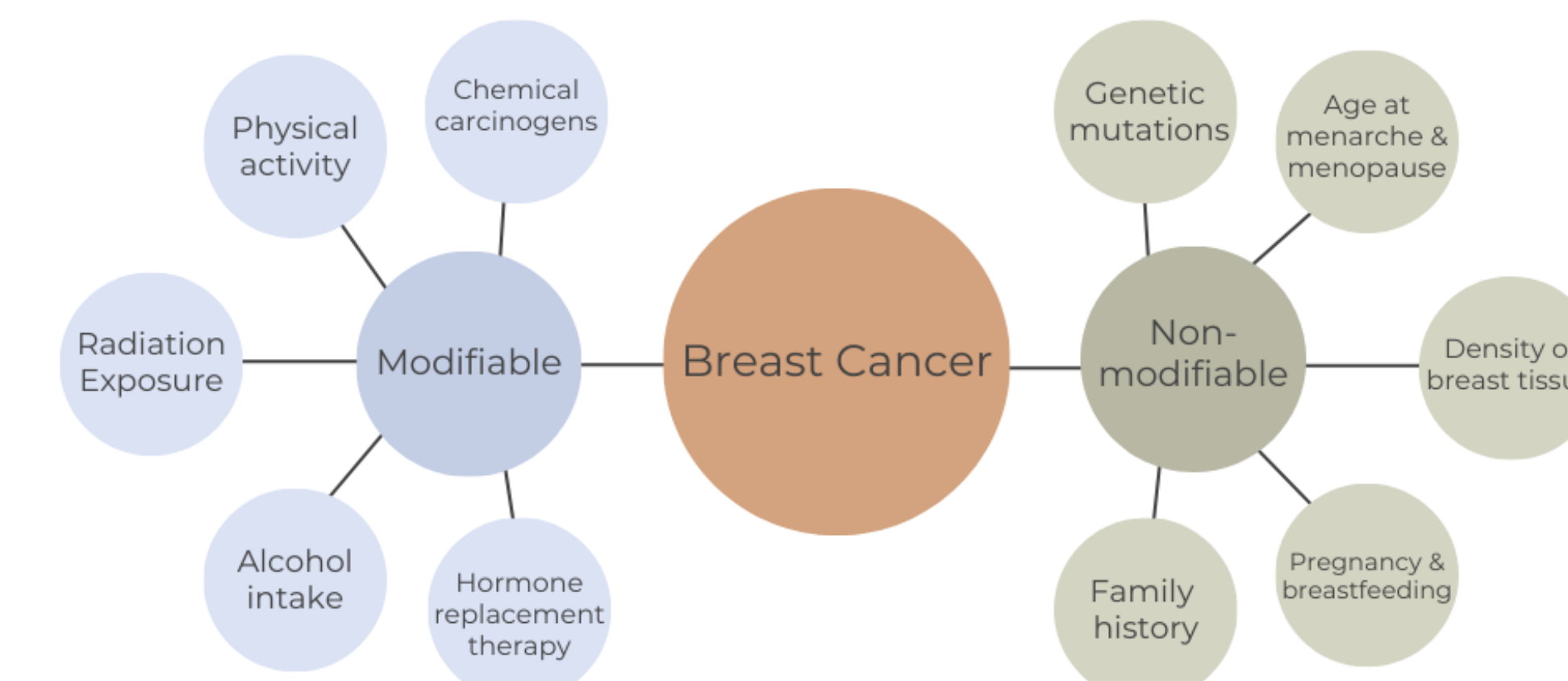


Figure 3. Percentages of correct responses to select B-CLAT questions of interest among survey respondents who Passed (n=27) or Failed (n=12) the measure. Several questions were selected from each question category. * denotes questions in which respondents who Failed the measure scored higher than respondents who Passed the measure.

Best Practices

- An estimated 30% of breast cancer cases are attributed to modifiable risk factors, such as excess body weight, physical inactivity, and alcohol intake, and thus may be preventable.¹⁰
- To maximize the benefit of mammographic screening, decisions should be individualized based on patients' risk profiles and preferences.
- Clinicians should work with patients to address modifiable and non-modifiable risk factors.



Conclusions

- More patient education about protective/risk factors and how to help family/friends access low-cost breast cancer screening programs.
- Increase awareness and accessibility to transportation expense assistance programs.
- Contacting patients via phone may not adequately reach the diverse sample of CCAP patients. To improve equitable access to breast cancer screening services, CCAP should consider other methods of outreach to women facing access (practical, physical, psychological, and financial) barriers.

Acknowledgements

Jason Villa, Gina Eubank, Jessica Anderson, Mark Parece, and the CCAP data team.

References

7. Williams, K.P., Templin, T.N., & Hines, R.D. (2013) Answering the call: A tool that measures functional breast cancer literacy. *Journal of Health Communication*, 18(11), 1310-1325. <https://doi.org/10.1080/10810730.2013.778367>.