



Racial and Ethnic Disparities in Breast Cancer Patients: A Literature Review of Time to Treatment (TTT)

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Background

Advancements in the diagnosis and treatment of breast cancer have resulted in earlier stages of diagnosis & increased survival over the past several decades.

Racial & ethnic disparities influence breast cancer outcomes including time to treatment.

Delays in time from diagnosis to treatment has emerged as a factor that can explain disparities between racial & ethnic groups.

Purpose

To identify and summarize existing research on racial and ethnic disparities in time to breast cancer treatment to identify groups for targeted intervention.

Methods

TTT Definition

- Defined as time from diagnosis to first treatment in days
- More than 30 days is considered longer TTT or delay in treatment

Commonly Used Racial/Ethnic Groups

- White, Black, Hispanic, Asian & Other Pacific Islander (API), & American Indian & Alaskan Native (AIAN)
- White population is reference group

Phase 1

- MD Anderson Librarian conducted initial literature search using predefined keywords
- Search resulted in 120 articles (Figure 1)

Phase 2

- Titles and abstracts were read to identify literature up for final review
- First review resulted in 48 articles (Figure 1)

Phase 3

- Articles were read in full to confirm relevance
- Second review resulted in 37 articles (Figure 1)

Methods (continued)

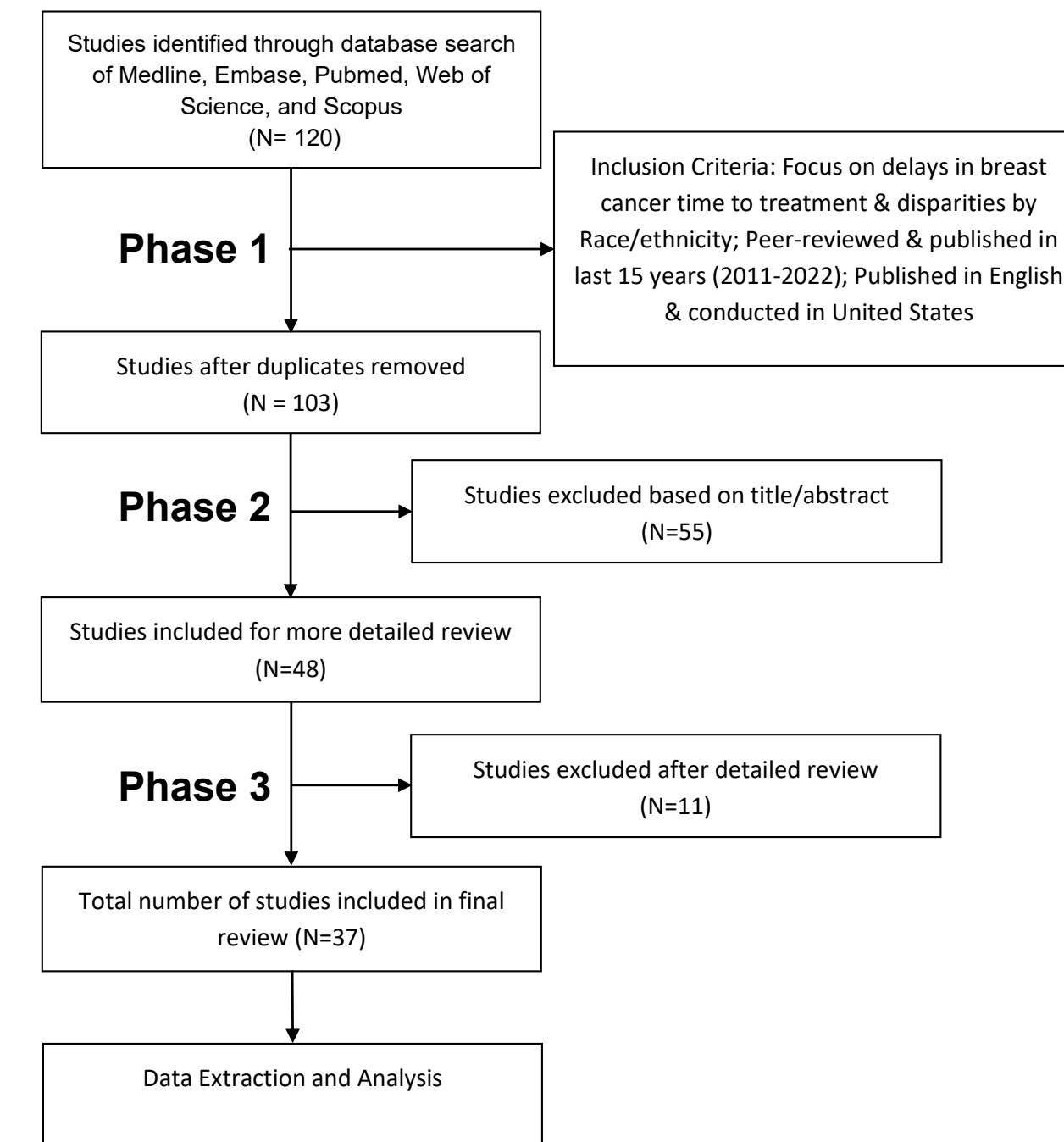


Figure 1. Literature Review Inclusion and Exclusion Process

Results

Table 2. Representation of Race/ethnic groups among included studies (N=37)

Included groups	N (%) of studies
Black	36 (97%)
Hispanic	17 (46%)
Asian/Pacific Islander	13 (35%)
American Indian/Alaska Native	2 (5%)
Other race/ethnicity	15 (40%)

Table 3. Frequency of TTT Findings by Aggregated & Disaggregated Racial/Ethnic Groups (N=37)

	Longer TTT	Shorter TTT	No Significance
Black	34		2
Hispanic*	12	2	3
Asian/Pacific Islander*	6	3	4
American Indian/Alaskan Native	2		6
API Disaggregated			
Asian Indian or Pakistani & Chinese		1	
Pacific Islander	1		
Hispanic Disaggregated			
H-White & H-Black	1		
Mexican & South or Central American			1

* 4 looked at variation within API (N=2) and Hispanic (N=2) groups

Table 1. Data Extraction Sample

First Author Name (Last Name)	Publication Year	Study Design	Purpose	Study Population					Key Findings
				Data Sources & Year	# of Participants	Sex	Age	Race/Ethnicity	
Zaveri	2022	Retrospective Cohort	To explore whether receiving care at a comprehensive breast cancer...	Data was collected from a breast center within an NCI-designated cancer center...	2094	Women	23-97	White, Black, Hispanic, Asian, and other (American Indian, Alaskan Native, and patients who listed themselves as non-Hispanic other)	Treatment interval was significantly shorter in White patients (33 days, IQR 24–44) compared with Black (47 days, IQR 34–70), Hispanic (45 days, IQR 32–63), Asian (42, IQR 29–59)...
Babatunde	2022	Retrospective Cohort	To assess factors related to delays...	Data from the South Carolina Central Cancer Registry (SCCCR)...	2155	Women	N/A (age not specified)	White and Black	Black women, on average, received adjuvant hormone therapy, surgery, chemotherapy, and radiotherapy 25, 8, 7, and 3 days later...

Discussion

Most studies showed that Black patients were more likely to experience longer time from diagnosis to breast cancer treatment compared to other groups, which may contribute to poorer breast cancer outcomes & worse overall survival.

Future investigations should shift their focus from the commonly used broad racial & ethnic groups, disaggregating such categories into smaller & more specific groups.

More work is needed to ensure equitable & timely access to treatment among all racial and ethnic groups.

Responsible Conduct of Research

The literature review followed PRISMA protocol, and no IRB was approval was required.

Due to small sample size of certain racial/ethnic groups, some authors added those groups into an “other” category or did not include them at all, which may limit interpretation of results.

Two independent researchers screened and reviewed all studies, resolving areas of disagreement by consensus.

Studies were assessed for quality including evaluation of limitations, data availability & small numbers.

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