NUANCE (INEQUITY IN AGING AND CANCER) STUDY
ACCESS TO CANCER TREATMENT CLINICAL TRIALS FOR RACIALIZED OLDER ADULTS: A SCOPING REVIEW

Vivian Li[1], Shabbir MH Alibhai[2], Kristen R Haase[3], Schroder Sattar[4], Lorelei Newton[5], Sapeda S Muhammad[2], Brenda Santos[1], Sanchiv Suresh[2], Juan Li[6], Hannah Sattar[7], Saul Cobbing[2], Nai-Wen Ku Ku[1], Sara Durbano[2], Caroline Mariano[8], Ivan Steenstra[9], Jihad AA Waked[1], David Dawe[10], Anthony Carrozzi[11], Shelly Dixit[3], Tina Hsu[12], Patricia Lumato[2], Jennifer AH Bell[13], Rouhi Fazelzad[14], Jacqueline L Bender[2], Sabrina T. Wong[15], Aisha Lofters[16], Kenneth Noel[17], Jackie Manthorne[18], Martine Puts[1]

[1]Lawrence Bloomberg Faculty of Nursing, University of Toronto, Toronto, Ontario, Canada. [2]Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada. [3]School of Nursing, University of British Columbia, Vancouver, British Columbia, Canada. [4]College of Nursing, University of Saskatchewan, Saskatoon, Saskatchewan, Canada. [5]School of Nursing, University of Victoria, Victoria, British Columbia, Canada. [6] Xiangya School of Nursing, Central South University, Changsha, Hunan, China. [7]Faculty of Science, University of Regina, Regina, Saskatchewan, Canada. [8]BC Cancer, Department of Medical Oncology, Vancouver Center, Vancouver, British Columbia, Canada. [9]Hanze University of Applied Sciences, Groningen, Netherlands. [10]CancerCare Manitoba Research Institute, CancerCare Manitoba, Winnipeg, Manitoba, Canada. [11]Temerty Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. [12]The Ottawa Hospital Cancer Centre, University of Ottawa, Ottawa, Ontario, Canada. [13]Department of Psychiatry, University of Toronto, Toronto, Ontario, Canada. [14]Library and Information Services, Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada.[15]Centre for Health Services and Policy Research, University of Toronto, Toronto, Ontario, Canada. [16]Peter Gilgan Centre for Women's Cancers, Women's College Hospital, Toronto, Ontario, Canada. [17]Walnut Foundation, Brampton, Ontario, Canada. [18]Canadian Cancer Survivor Network, Ottawa, Ontario, Canada.

BACKGROUND

- Racialized older adults face increased challenges in accessing clinical trials[1]
- Rare to see data collected on both age and race in clinical trials – Has contributed to cancer under-treatment and over-treatment of racialized adults[2]
- E.g. Older Black Americans in the United States are more likely to be diagnosed with advanced cancer and have poorer cancer survival compared to their White counterparts[4]
- Racialized older adults face multiple barriers to clinical trials due to social determinants of health (e.g. income and education)[3]
- Racism and ageism act as SDOH – Leads to a prevalent mistrust of healthcare institutions
- Prior reviews on this subject are limited because:
  1. Were conducted exclusively in the US
  2. Limited to studies with patient perspectives exclusively and overlooking insights from clinician
  3. Used a narrative approach instead of a systematic methodology
  4. Concentrated on a singular cancer type (e.g. colon or lung cancer)
  5. Did not describe details related to clinical trial enrollment of both racialized and non-racialized older adults, or solely focused on a single racialized group
- **Research Question: What are the barriers, facilitators, and potential solutions for enhancing access to cancer clinical trials among racialized older adults?**

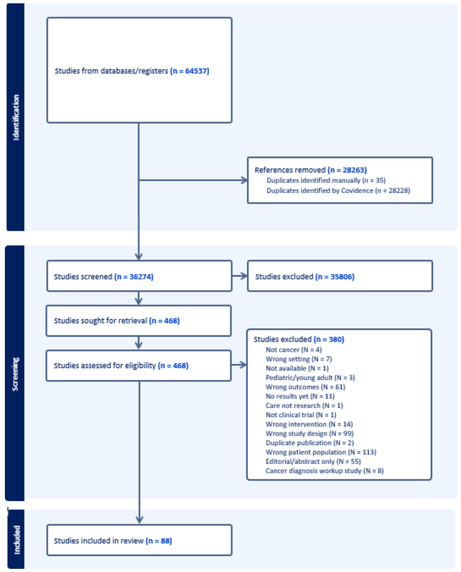
METHODS

- Protocol has been published in BMJ Open[5]
- Search was originally conducted from inception to November 23, 2022 in Medline ALL, Cochrane, Embase, CINAHL, and Global Index Medicus from WHO
- Was rerun on December 12, 2023
- Study title, abstract screening, and full-text screening was conducted by two independent reviewers
- Data abstraction process underwent independent review by a second reviewer
- Any discrepancies were resolved with a third reviewer
- Initial search yielded 36,274 unique studies
- Ultimately identified 88 studies

Table 1. Inclusion and Exclusion Criteria

Inclusion Criteria: • Racialized adults aged 18 and over with cancer • Primary research articles • Reports barriers, facilitators, or solutions for enhancing enrollment to cancer treatment clinical trials • Reports clinician perspectives on barriers or facilitators
Exclusion Criteria: • Languages other than English • Animal studies • Grey literature • Reports percentage enrollments for racialized adults without data on barriers, facilitators, or solutions for cancer clinical trial enrollment • No race data reported • Had majority White study populations without further subgroup analyses • Reports cancer prevention, genetic testing, palliative, or supportive care (e.g. exercise) • Indigenous populations

Figure 1. PRISMA Flowchart



RESULTS

Table 2. Patient-Described Barriers and Facilitators to Trial Enrollment

Barrier	Racialized Proportions
1. Limited awareness or knowledge of clinical trials (clinicians did not discuss clinical trials during patient appointments) (n=16 studies)	Hispanic/Latino=38%; Asian=33%; Black/African American=29-65%
	Hispanic/Latino=100%; Black/African American=27-100%
	Asian=100%; Hispanic/Latino=17%
	Black/African American=50%
2. Hesitations related to being treated as an experimental subject (“guinea pig”) (n=14)	Asian=100%; Hispanic/Latino: 39%; Black/African American=8-64%
	Black/African American=58-100%; Hispanic/Latino=42%
	Asian=100%; Black/African American=100%
Facilitator	
1. Trusting relationship with the clinicians who recommended clinical trials (n=9)	Asian=100%; Black/African American=100%
	Asian=100%; Black/African American=100%
	Black/African American=26%; Asian=1-100%
1. Altruistic motivations (believed that trial participation benefits others) (n=5)	Black/African American=100%
	Asian=100%; Black/African American=100%
	Black/African American=33%

Table 3. Clinician-Described Barriers and Facilitators to Trial Enrollment

Barrier
1. Insufficient awareness or information about available clinical trials to engage in meaningful discussions with patients (n=4)
2. Fear of patient mistrust (n=4)
Facilitator
1. Pre-established trusting relationships with patients (n=3)
2. Partnering with community groups (n=3)

Table 4. Trial Enrollment Interventions

Patient-Directed Interventions	Result
1. Educational materials to explain the purpose and process of a given trial, including those in non-English languages (n=9)	Improvements in patients’ understanding of clinical trials and intentions to participate in a clinical trial. But statistical significance of results was often not reported.
2. Culturally tailored materials (e.g., videos and brochures) featuring racialized patients (n=5)	Mixed results with effect on patients’ reported likelihood to enroll in a clinical trial.
3. Patient navigators offering education about trials and personalized support (e.g., aid with transportation to trial sites) (n=3)	Statistically significant increase in patients’ enrollment and completion of clinical trials compared to non-intervention patients.
Clinician-Directed Interventions	
1. Financial incentives for clinicians to enroll racialized patients into clinical trials and promoting physician-physician communication to address concerns related to specific trials (n=1)	Increase in the number of patients enrolled into clinical trials. But statistical significance of this result was not reported.

- Most common patient-described barrier reported was limited awareness or knowledge of cancer clinical trials
- Most common clinician-described barrier was insufficient awareness or information about cancer clinical trials
- Targeted interventions used educational materials to explain the purpose and procedures of specific trials in non-English languages – But statistical significance was often not reported

- Most common patient-described facilitator was trusting relationships with the clinicians recommending such trials
- Most common clinician-described facilitator was pre-existing trusting relationships with patients
- Targeted interventions used culturally tailored materials featuring racialized patients – But statistical significance was often not reported

CONCLUSION

- Broad and comprehensive summary of barriers, facilitators and interventions from both patient and clinician perspectives
- Systematic approach
- Inclusion of countries worldwide and various cancer types
- Need to include diverse racialized populations beyond Black and Hispanic and beyond the United States
- Tailor clinical trial recruitment to a given racialized group
- Assess trial enrollment rates as key outcomes

Conflicts of Interest:

- The authors have declared that no conflicts of interests exist.

- This study is funded by the Princess Margaret Health Equity Grand Challenge, supported by the generosity of Lindy Green & Sam Chaiton. The funder did not have a role in the design and conduct of the study.

References:

(1) Haase K, Sattar S, Pilleron S, et al. The state of ageism in cancer care: a scoping review. *Support Care Cancer*. 2021;29(S1):S78-79. doi:10.1007/s00520-021-06285-8; (2) Braveman P. What are health disparities and health equity? We need to be clear. *Public Health Rep*. 2014;129(S2):5-8. doi:10.1177/00333549141291S203; (3) World Health Organization. Social determinants of health 2008. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1. Accessed February 1, 2024. (4) Arksey H, O’Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol*. 2005;8(1):19-32.; (5) Li V, Alibhai SMH, Noel K, et al. Access to cancer clinical trials for racialised older adults: an equity-focused rapid scoping review protocol. *BMJ Open*. 2024;14(1):e074191. doi:10.1136/bmjopen-2023-074191