

Results from a Pilot Study Examining the Impact of Distress Screening and Referral on Health Care Cost and Utilization Among Breast Cancer Patients

Melissa F. Miller, PhD, MPH¹, Melyssa L. Allen, BS², Diane C. Robinson, PhD², Nicole Nicksic, PhD, MPH¹, Alexandra K. Zaleta, PhD¹
¹Cancer Support Community, Research and Training Institute, Philadelphia, PA ²Orlando Health UF Health Cancer Center, Integrative Medicine, Orlando, FL

Background

Distress and unmet psychosocial needs among patients with chronic disease have been associated with hospitalization frequency and length of stay and number of physician office and emergency room visits.¹

There is research to suggest that identifying and addressing cancer patients' distress can lead to improved overall health and reduced healthcare costs.²

CancerSupportSource® (CSS) is a validated distress screening and referral program that provides a patient report with key information about concerns and support resources and a clinical report summarizing concerns that facilitate referral to additional assessment and support.³

Aim

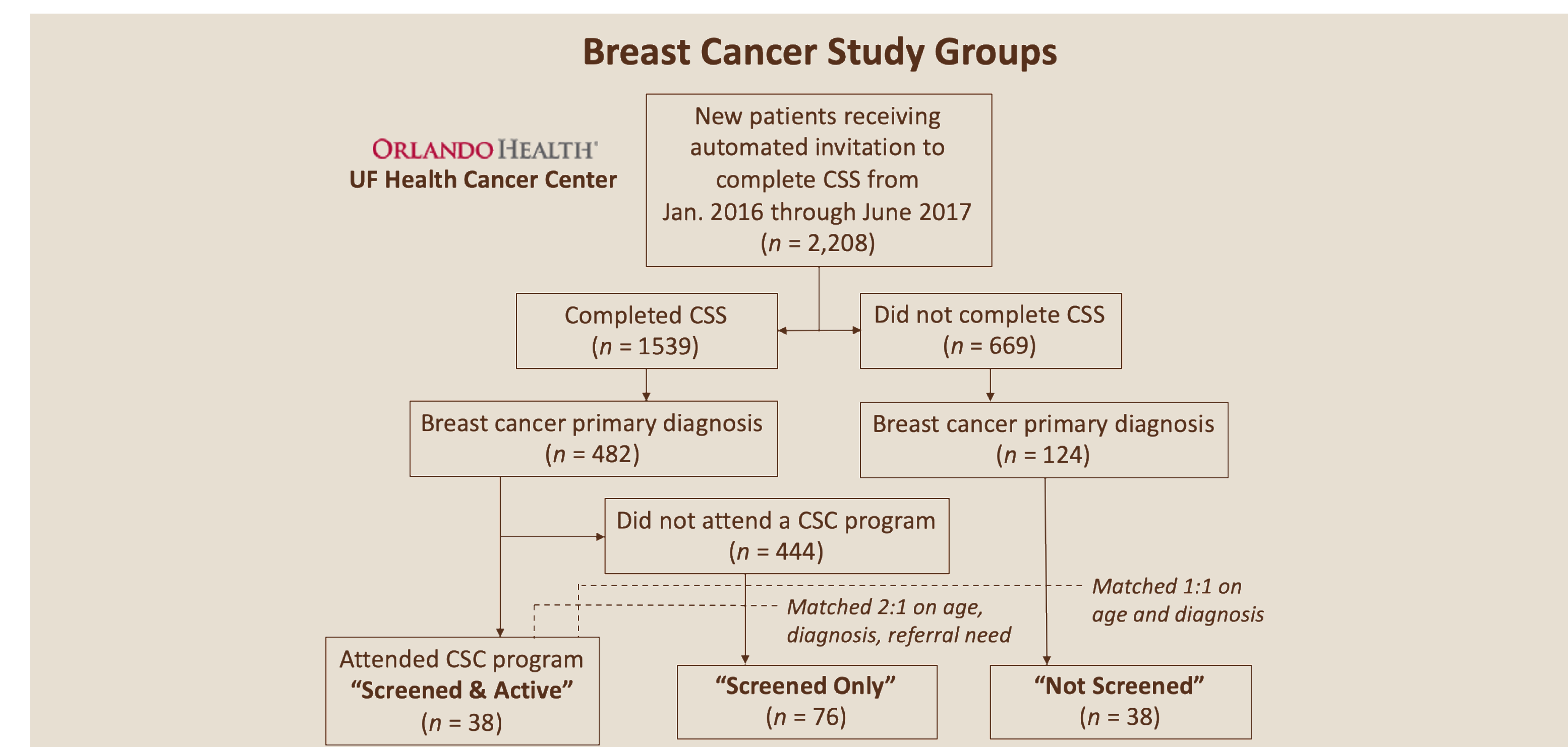
We explored the impact of CSS distress screening on health care cost and utilization among breast cancer patients at a community cancer center in a retrospective cohort pilot study.

Methods

All participants received a primary diagnosis of breast cancer and were treated for their cancer at Orlando Health UF Health Cancer Center. Automated invitations to complete CSS were emailed to patients shortly after diagnosis.

Total billable charges across 2 years from screening, or date of scheduled screening, were extracted using CPT codes for Emergency Department, hospital inpatient, critical care, and office and outpatient services. Allied health service utilization (e.g., Integrative Medicine services, financial counseling services, nutrition) was extracted from medical records.

Group differences in total cost (log transformed) were tested using multiple linear regression, and differences in health care utilization were tested with binary and ordinal logistic regression. We reported predicted values adjusted for age and race/ethnicity.



Study Participants

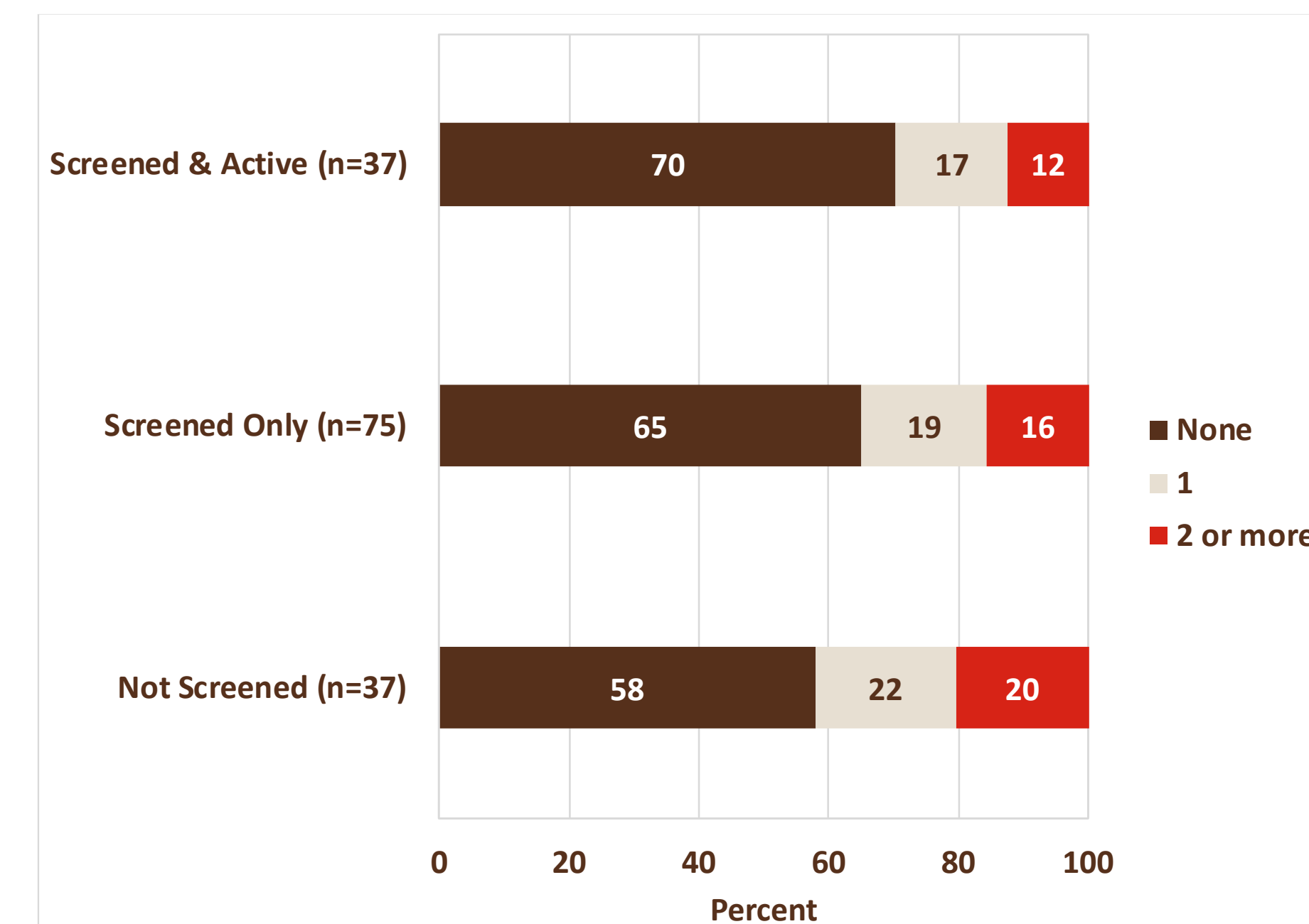
Participants were 54% non-Hispanic White, 14% non-Hispanic Black, and 12% Hispanic. Mean (SD) age was 55 (11) years. Among participants who completed CSS, 69% completed screening within 1 month of diagnosis.

Acknowledgments

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Results

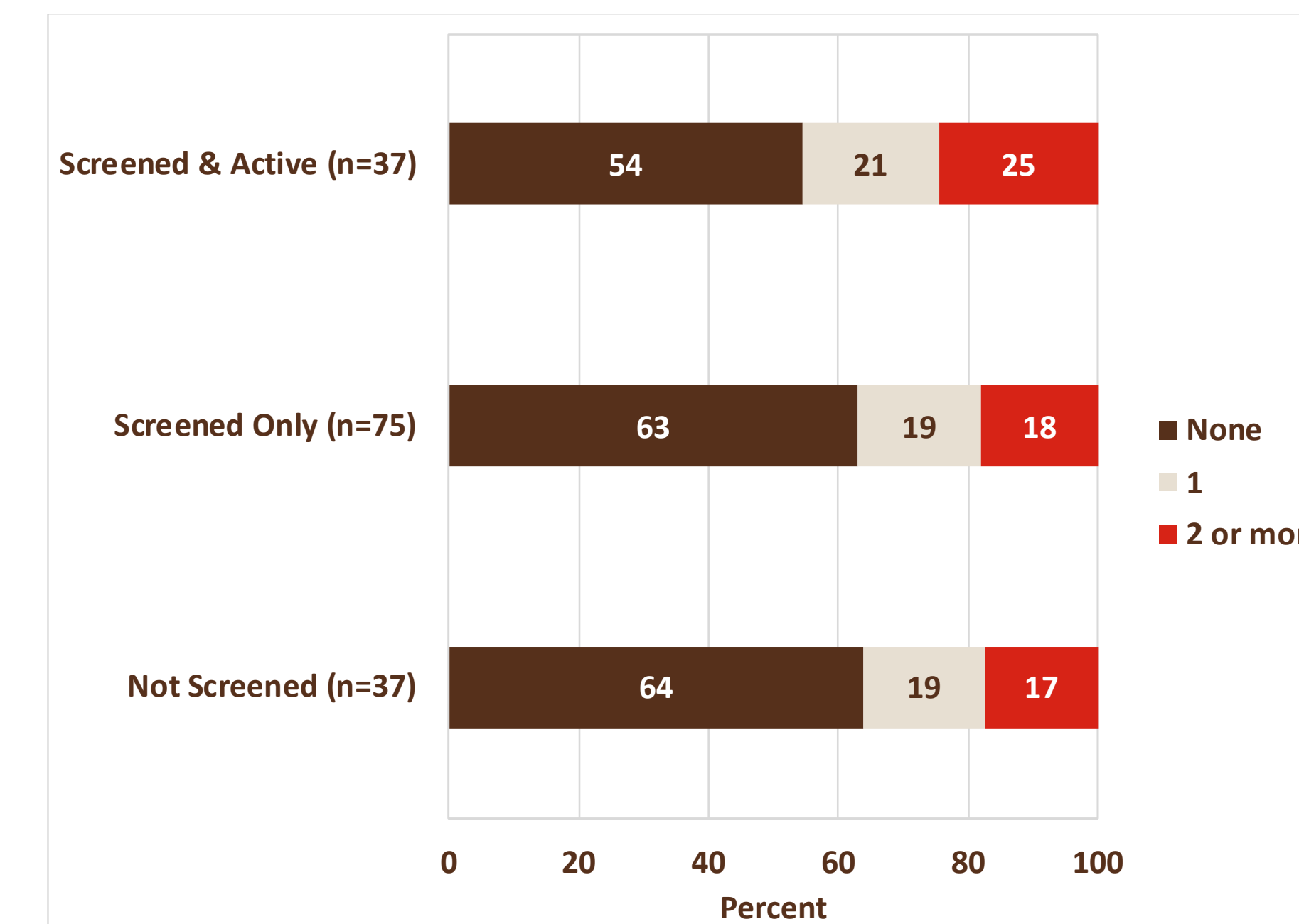
Number of Visits to Emergency Department



p = .46, controlling for age, race, and ethnicity

There was a trend for fewer visits to the Emergency Department among those who were screened than among those who were not screened.

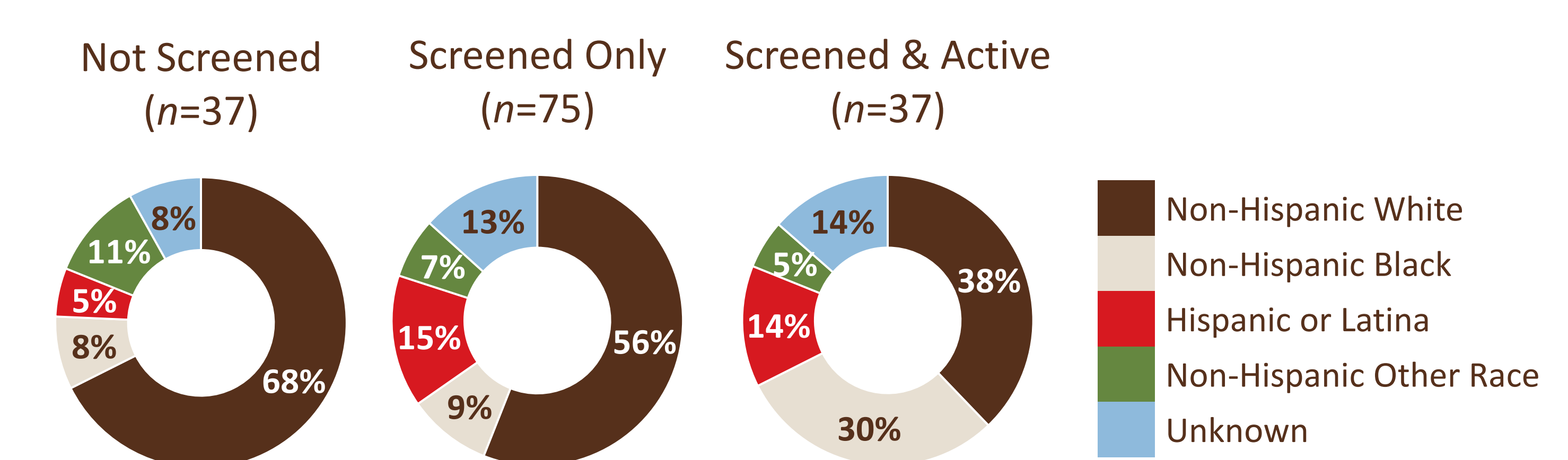
Number of Office and Outpatient Visits



p = .54, controlling for age, race, and ethnicity

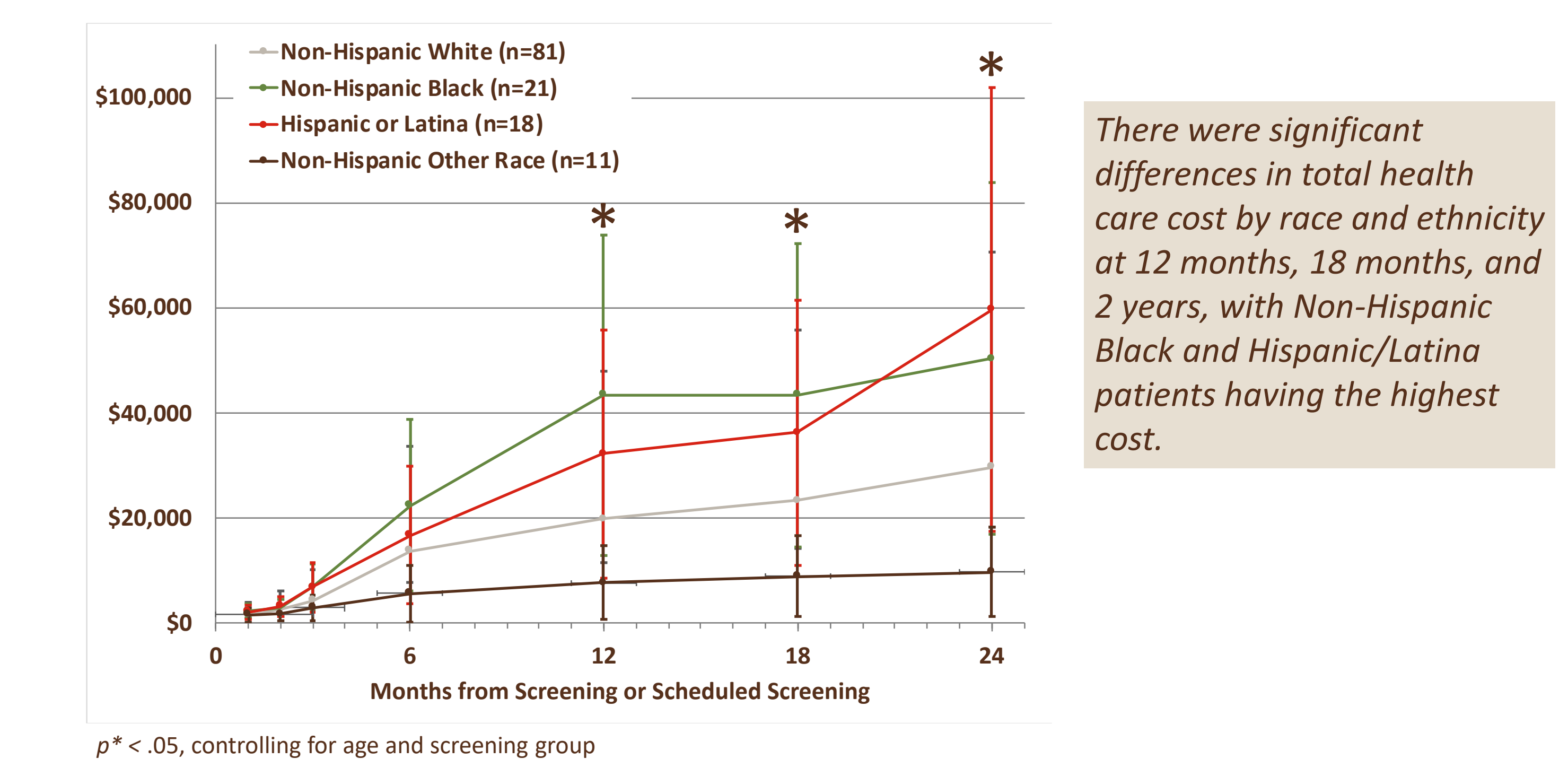
We observed a trend for more physician office and outpatient visits in the screened and active group than among those who were screened only or not screened.

Distribution of Race and Ethnicity Across Screening Groups



We observed a difference in the distribution of race and ethnicity by screening group, with a higher proportion of Non-Hispanic Black patients in the screened and active group (Fisher's exact, p=.08).

Health Care Cost Over 2 Years By Race and Ethnicity



p* < .05, controlling for age and screening group

Conclusions

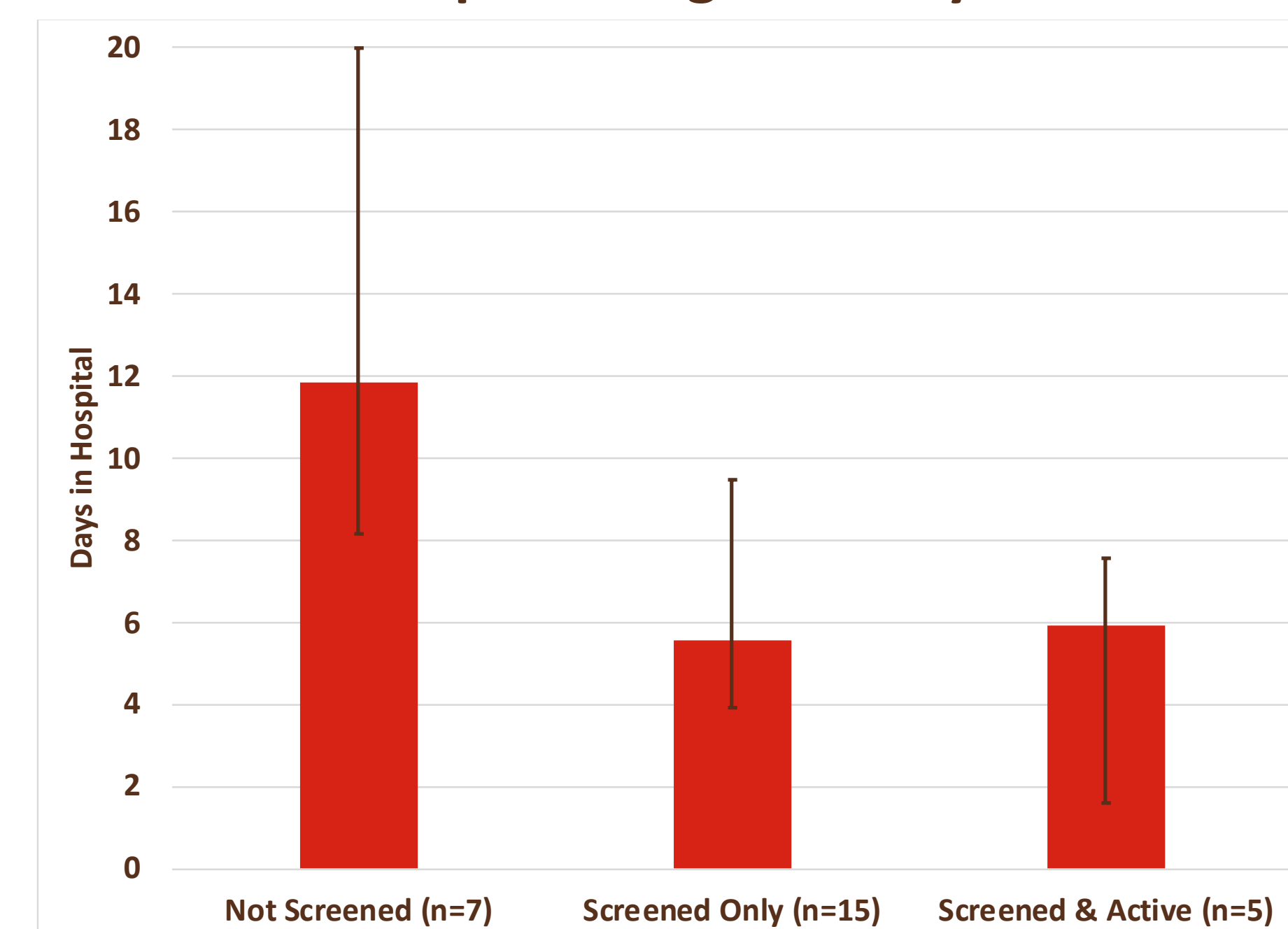
CancerSupportSource®, used to identify and address breast cancer patients' distress, was associated with differences in health care utilization in a hospital setting when compared to patients who were not screened. These findings warrant additional study to understand the potential impact of distress screening on reducing cancer health care cost and improving patient well-being.

Our pilot data suggest a shift in medical resource utilization that is aligned with efforts to maximize efficiency and reduce overall health care cost through reduced emergency department visits, decreased length of hospital stays, and increased office and allied professional utilization.

Overall, there was no difference in health care cost between the screening groups. However, higher overall charges were observed among Black and Latina participants. Social factors, such as socioeconomic status, should be examined in future studies as potential cost drivers to the health care system and as areas of impact for distress screening.

Next steps in this line of research include further exploration of the data from this retrospective study and the development and implementation of a prospective study to measure the cost/benefit ratio of distress screening by expanding measures of cost and including measures of patient value.

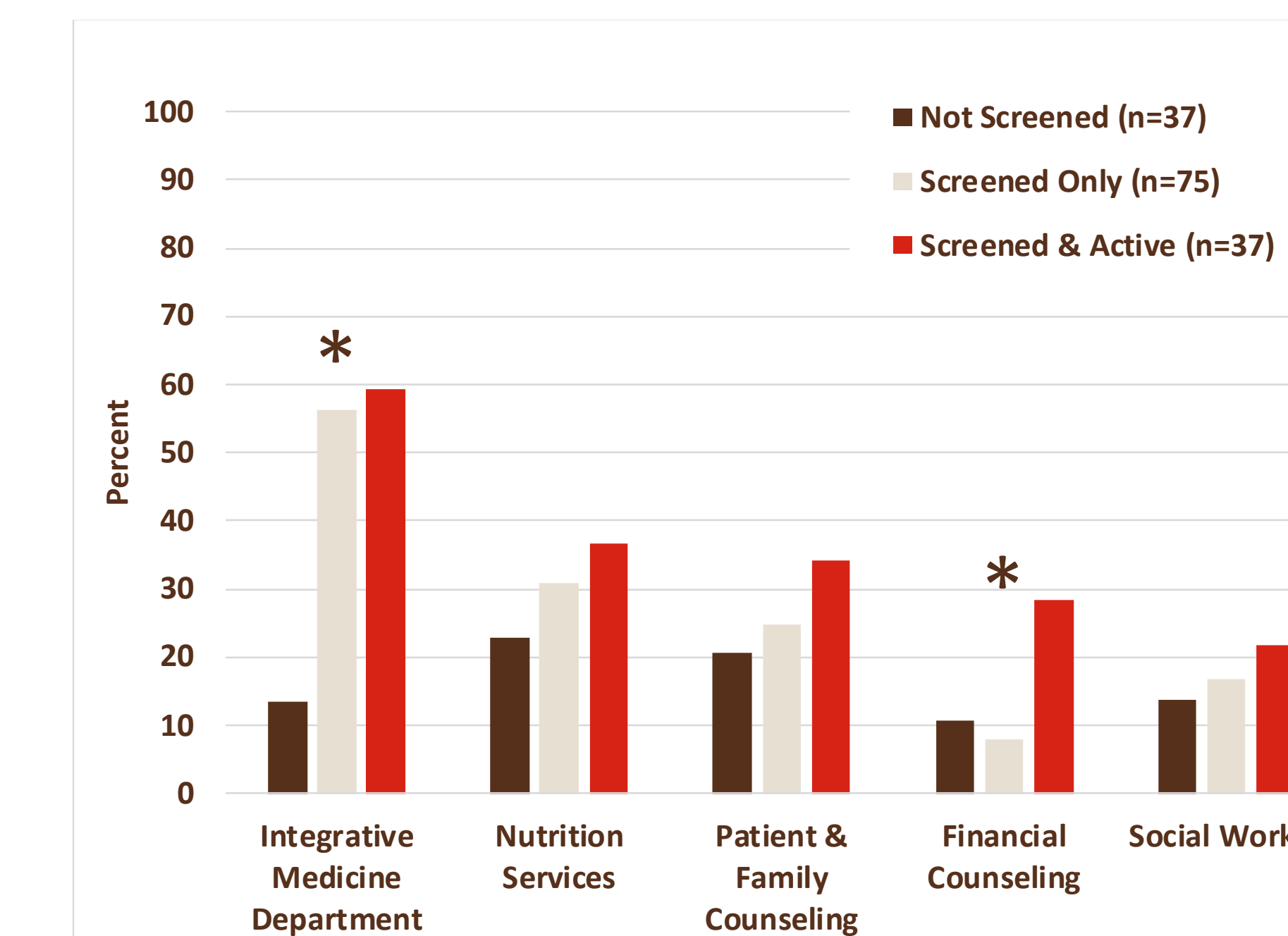
Hospital Length of Stay



p = .18, controlling for age, race, and ethnicity

For the 27 study participants who were hospitalized at Orlando Health during the study period, the average total number of days spent in the hospital per patient was half among those who completed CSS than among those who did not.

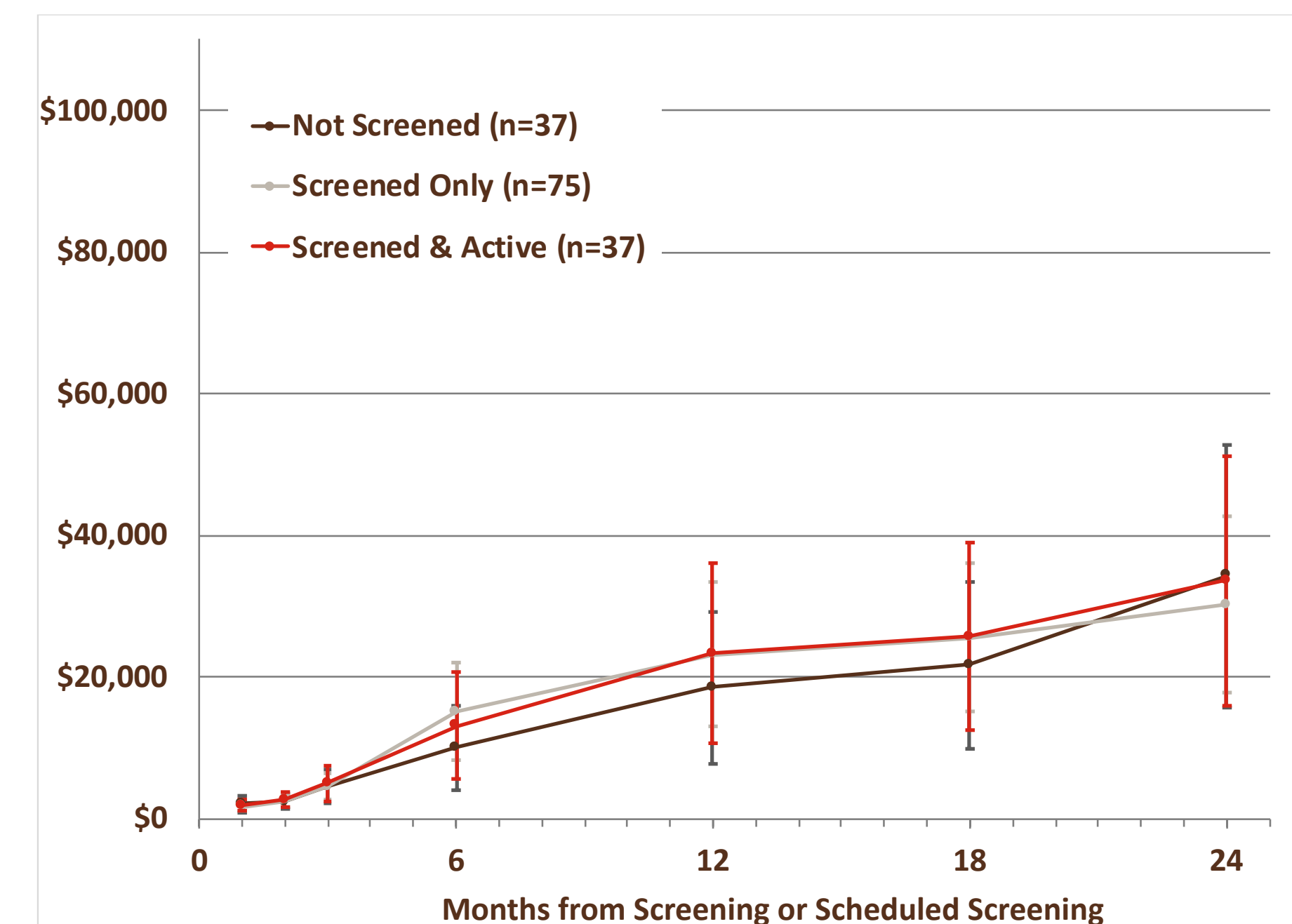
Allied Health Services



p* < .05, controlling for age, race, and ethnicity

Utilization of allied health services was greater among those who were screened, and greatest among those who were screened and active, with significantly greater use of services within the Integrative Medicine Department as well as financial counseling services.

Health Care Cost Over 2 Years



References

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