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Assessing Cancer Prevention Knowledge During COVID-19 Pandemic

Robert Anthony Adamian
University of Vermont

Lily Deng
Larner College of Medicine

Nicholas W. Krant
University of Vermont

Trevor AR McDonald
Larner College of Medicine

Natalie Qin
Larner College of Medicine

See next page for additional authors

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Authors

Robert Anthony Adamian, Lily Deng, Nicholas W. Krant, Trevor AR McDonald, Natalie Qin, Ally Sarkis, and Althea Jem Darbin Tapales

Introduction

- In response to the COVID-19 pandemic, adjustments in the provision of health care resources have caused a significant decrease in cancer screenings. These missed screenings may have considerable impacts on patients, health care practitioners and health systems.
- In addition to the importance of resuming timely screening, studies have shown that a large portion of cancer deaths stemming from breast, skin, and colorectal cancer are preventable by risk factor modification at the patient level.
- Many people remain uncertain of how best to prevent cancers, despite general awareness of concerns.
- Raising awareness can empower patients to reduce their risk factors for developing breast, skin and colorectal cancer.
- It has been shown that increased knowledge of colorectal cancer screening leads to increased participation in early screening, which can lead to better overall outcomes.

Objectives

- Assess knowledge of leading cancer types among population using social media.
- Effectively promote awareness of evidenced-based cancer prevention.
- Encourage participants to assess personal risk factors for cancer and to start conversations with their physicians about potential screening.

Methods and Materials

- A literature-based survey was created to assess understanding of colon, breast, and skin cancer within the 18+ population that had access to social media.
- The survey consisted of the following demographic and true/false questions:

Demographic Questions	True or False Questions (highlighted = correct answer)
What gender do you most associate with: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Non-binary <input type="checkbox"/> Decline to answer	I am never in the sun. I don't need to worry about skin cancer. TRUE or FALSE
How old are you? <input type="checkbox"/> 18-27 <input type="checkbox"/> 28-45 <input type="checkbox"/> 45+	I am reducing my risk for breast cancer by being physically active and drinking less alcohol. TRUE or FALSE
Do you live: <input type="checkbox"/> Within the United States or a U.S. Territory <input type="checkbox"/> Internationally	I have a family member who has been diagnosed with colon cancer, I am at an increased risk for colon cancer. TRUE or FALSE
	I know where to find recommendations and guidelines for cancer screening. TRUE or FALSE

- Correct answers were revealed after submission with links to more information on the American Cancer Society website.
- The survey was designed on REDcap and then promoted by Less Cancer on several social media platforms. The survey was open for 9 weeks.
- Survey results were analyzed using excel and student's T-tests were conducted to identify any statistically significant differences between age groups and gender.

Results

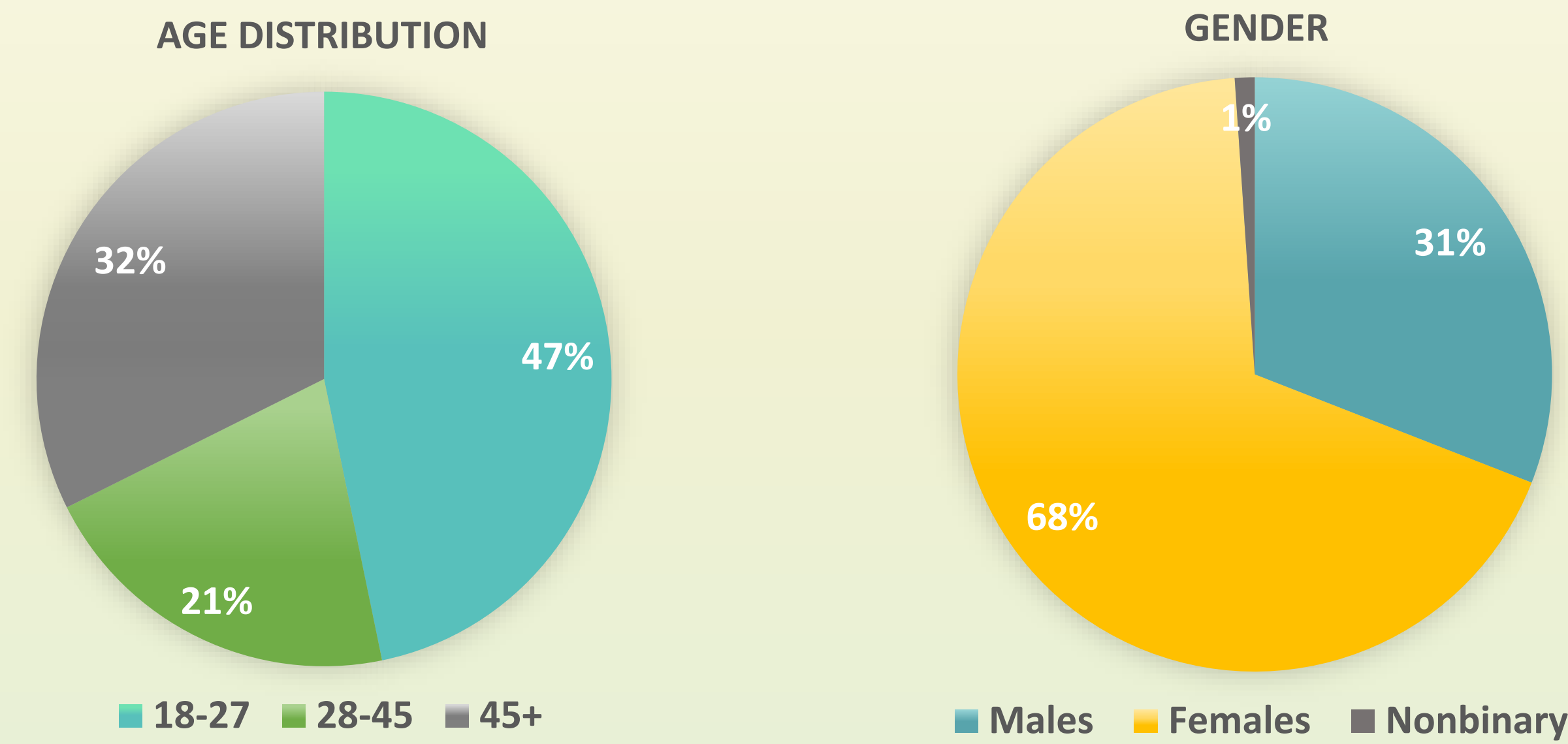


Chart 1 & 2: Demographic information about survey respondents (N=286): Gender and geographic location were not shown to have an association with correct responses to individual questions. No statistical significance was observed between genders and geographic locations for respondents who answered all three cancer questions correctly

% of People Who Answered All 3 Cancer Questions Correctly

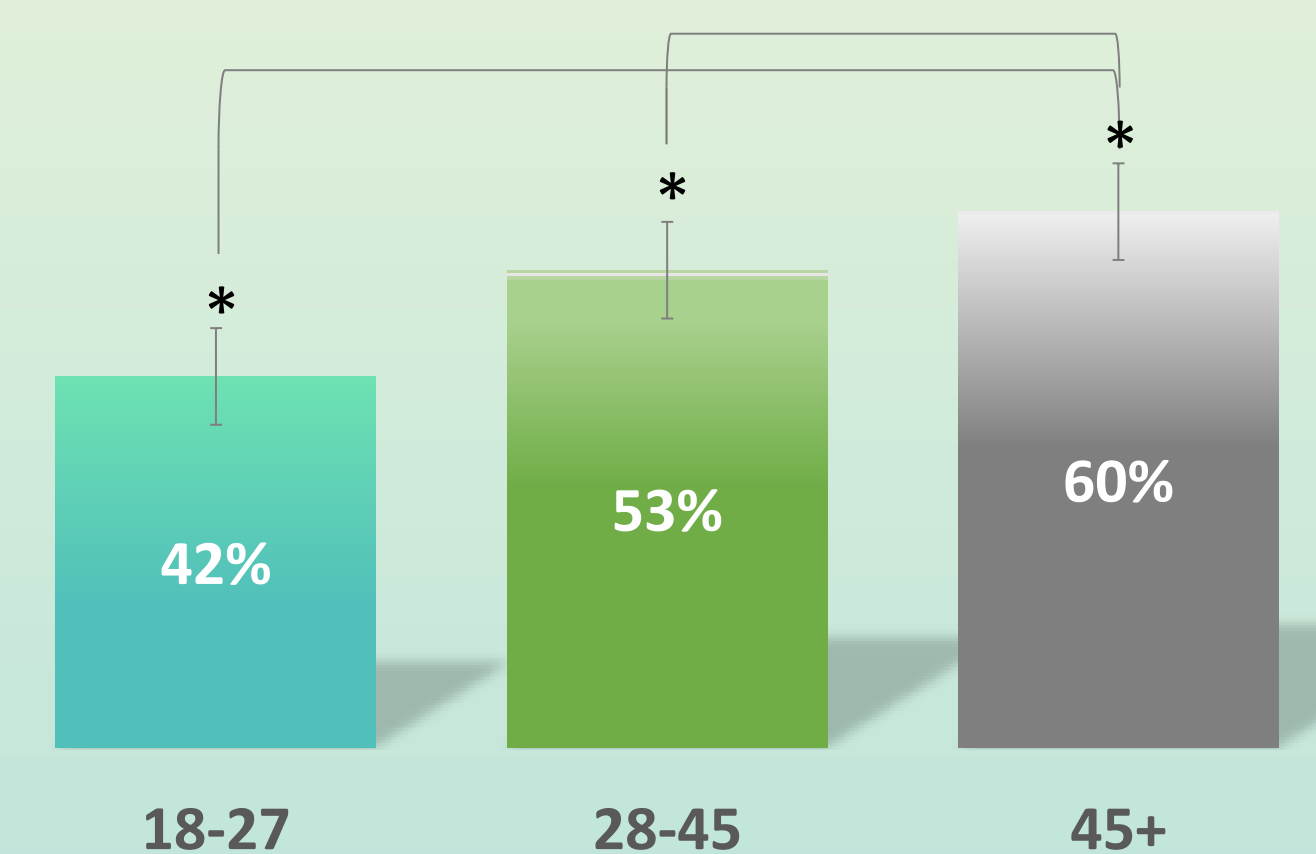


Chart 3: Percent of respondents within each age group who correctly answered all three questions related to specific cancers. Statistical significance (p<0.05) was noted between the 18-27 and 45+ age groups as well as between the 28-45 and 45+ groups.

"I know where to find recommendations & guidelines for cancer screening."

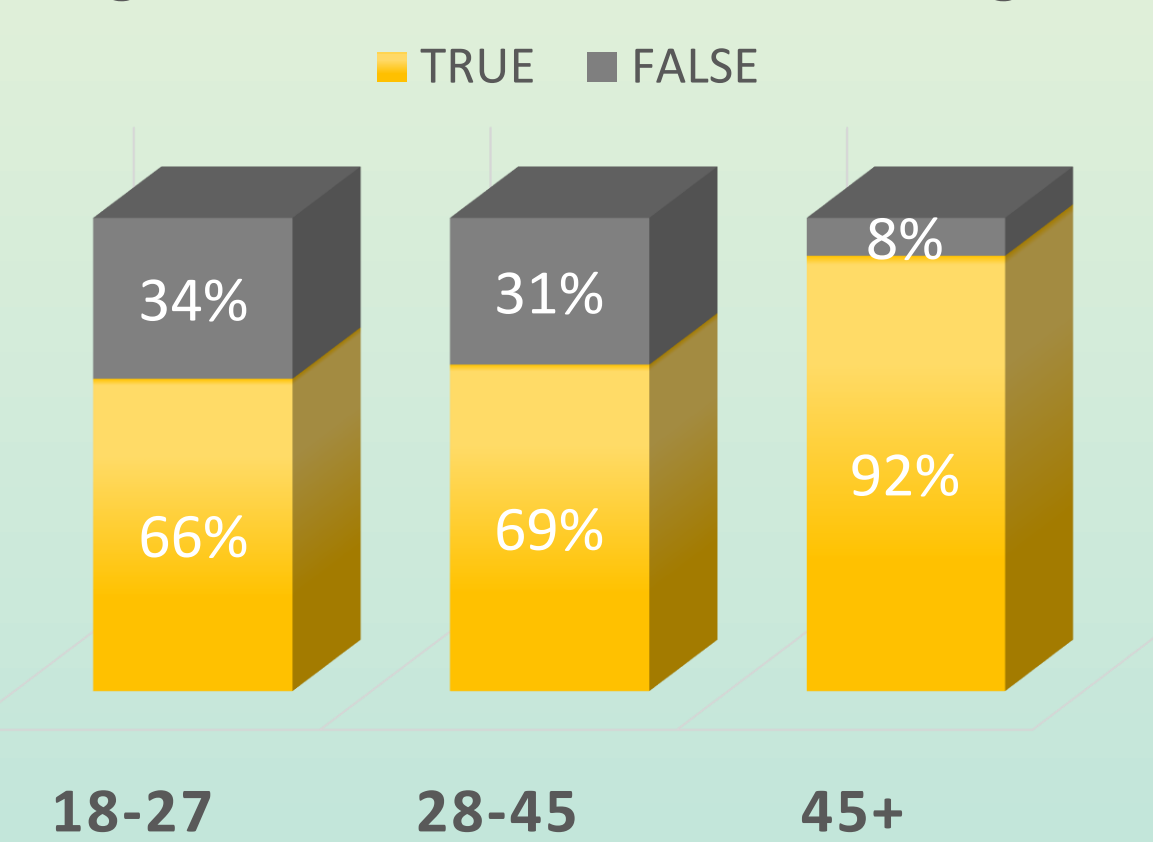


Chart 4: Percent of respondents within each age group who responded True/False for resources accessibility question. Statistical significance (p<0.05) was noted between the 18-27 and 45+ as well as between the 27-45 and 45+ group.

True/False Questions: % Correct

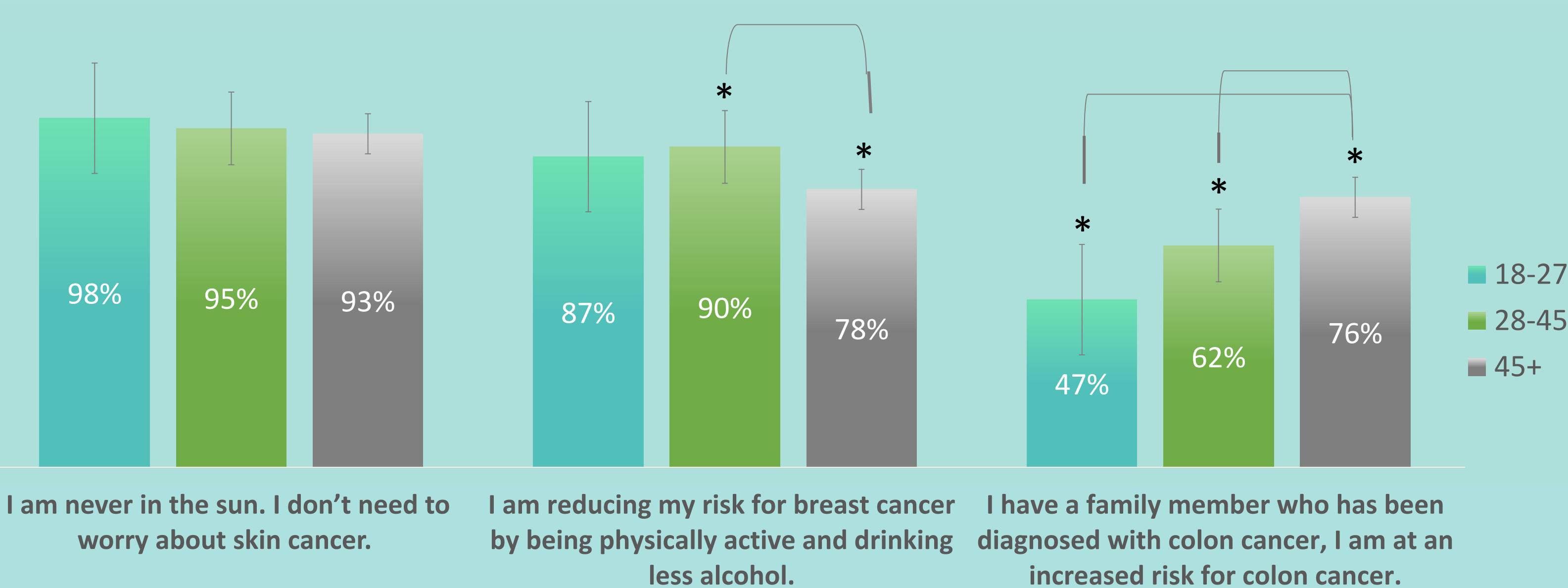


Chart 5: Percent of respondents within each age group who correctly answered each individual cancer related question. Statistical significance (p<0.05) was noted between age groups in several instances, noted above by the star (*) and associated connected bars.

Discussion

- Most respondents across all age groups answered the question regarding skin cancer correctly. This is potentially due to early and continuous education through familial practices, campaigns and mass media exposure.
- For the question pertaining to breast cancer, the 28-45 age group had a higher correct response rate than that of the 45+ age group. This statistical difference may be due to increasing emphasis in early breast cancer education within school curriculums.
- Individuals in the 45+ age group had more correct responses regarding the colon cancer question as compared to respondents within the 18-27 age group. This significant difference could imply that the younger population has less exposure to colon cancer education since they are not the target demographic for screenings. They subsequently would have less knowledge about how family history contributes to increased risk of developing colon cancer.
- With increasing incidence of colorectal cancer in individuals younger than 50, our results may highlight the importance of encouraging younger individuals to discuss and assess their own risk factors with their healthcare provider.
- Most respondents across all age groups indicated that they were aware of and felt comfortable accessing screening and guideline recommendations about leading cancer types. This is likely due to continued increase in readily accessible online materials about cancer and cancer prevention.

Recommendations

- This suggests that there is further need for resources regarding leading cancer types to help bridge the knowledge gap between those who are and are not yet eligible for screening.
- Given younger individuals showed fewer positive responses when assessing comfort level and knowledge of available resources, physicians should initiate conversations with patients at a younger age to keep them better informed and to mitigate apprehension.

Limitations

- It is possible that the colorectal question confused respondents given it might have implied that a familial relationship was a prerequisite for response. It would be beneficial to include a word that implies conditionality for any future studies conducted. Possible rephrasing could include, "If someone in my family has colorectal cancer, I have a higher risk of developing colorectal cancer."

Resources

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