



Oral Hygiene Behaviors and Prevalence of Dental Caries for Students Residing on a Kentucky University Campus

Daniel Lopez, MPH Candidate | Dr. Laurie Larkin, PhD | Dr. Phyllis Bryden, DrPH, MSPH, CPH, RN
 Department of Public Health and Clinical Sciences, College of Health Sciences, Eastern Kentucky University

INTRODUCTION AND PURPOSE

Literature:

- Appalachia faces oral health disparities to combat the “silent epidemic”, where more than 90% of the Appalachian population suffers from tooth decay by 44 years of age and over 1/2 of adults have periodontal disease (Savage et al., 2018).
- Residents in rural Appalachia are less likely than urban residents to visit dentists, more likely to have no dental insurance, suffer disproportionate rates of missing teeth (Savage et al., 2018).
- The low range of dental services that Medicaid can cover in Kentucky affects about 1/4 of the population with unmet dental services (Wang et al., 2021).
- In a survey conducted to investigate oral health behaviors among university students in Indonesia, Malaysia, Myanmar, Thailand, and Vietnam, researchers found the following: 27.7% of students reported sometimes having tooth ache in the past 12 months, 39.4% reported having one or more cavities, 20.3% did not brush their teeth twice or more times a day, 89.5% did not use toothpicks twice or more times a day, and 30.9% had never been to a dentist (Peltzer & Pengpid, 2017).
- The CDC found that the prevalence of dental caries among American adults aged 20-64 years old was 90% (Oral Health Surveillance Report, 2019, 2021).
- Oral health should always be looked at as a part of an individual's general health, as oral disease have strong links to other noncommunicable diseases such as diabetes and cardiovascular diseases (Duangthip & Chu, 2020).

Purpose of this study:

- The purpose of this study was to assess self-reported oral hygiene practices and prevalence of dental caries among Kentucky students living on campus.

Hypotheses:

- Students who reside in suite style dorms will have a higher frequency brushing, flossing, and lower prevalence of dental caries, compared to students who live in community style rooms.
- Students who identify as females will have better oral hygiene behaviors than students who identify as males.

METHOD

Participants:

- Undergraduate students, 18 years of age and older and enrolled at a regional Kentucky university campus.
- Participants from the Kentucky university campus must be an undergraduate student and be a resident of student housing.

Survey:

- The Oral Health Behaviors for University Students (OHBUS) Survey is a 21-question survey assessing student behaviors regarding their oral hygiene and dental caries. The survey was created by a graduate researcher and their committee. The OHBUS was pilot-tested for clarity and understanding.
- 5 demographic questions, 7 questions regarding a participant's oral hygiene behaviors, 1 question regarding dental insurance, 1 question about smoking behaviors, 1 question about chewing tobacco, 2 questions regarding sugar food and drink intake; and 4 questions about perceived oral health.
- Distribution of survey was via email between March 6th- 24th, 2023.
- 333 students completed the survey

Data Analysis:

- Means, Standard deviations, Proportions/Percentages, and Chi square analysis

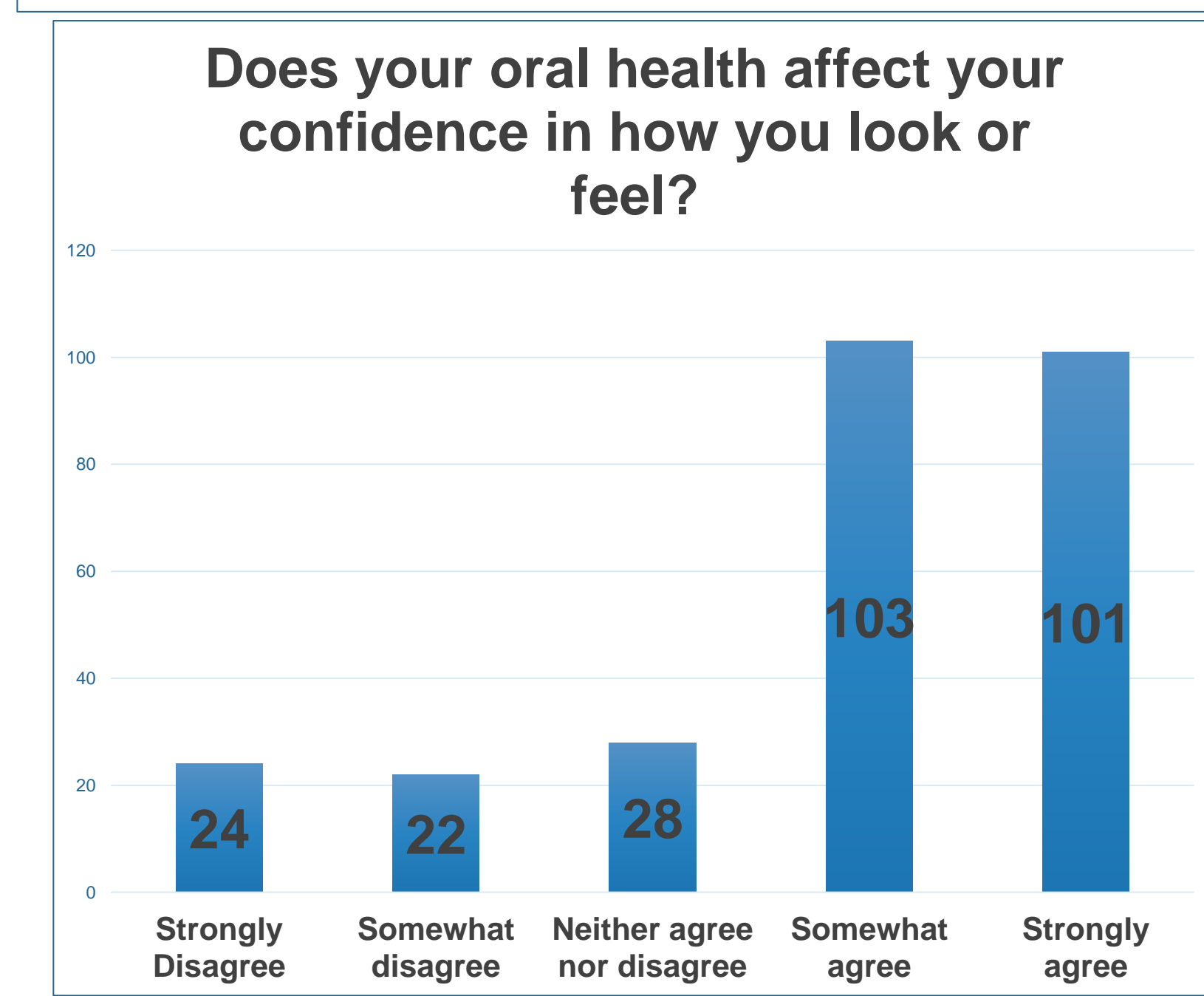
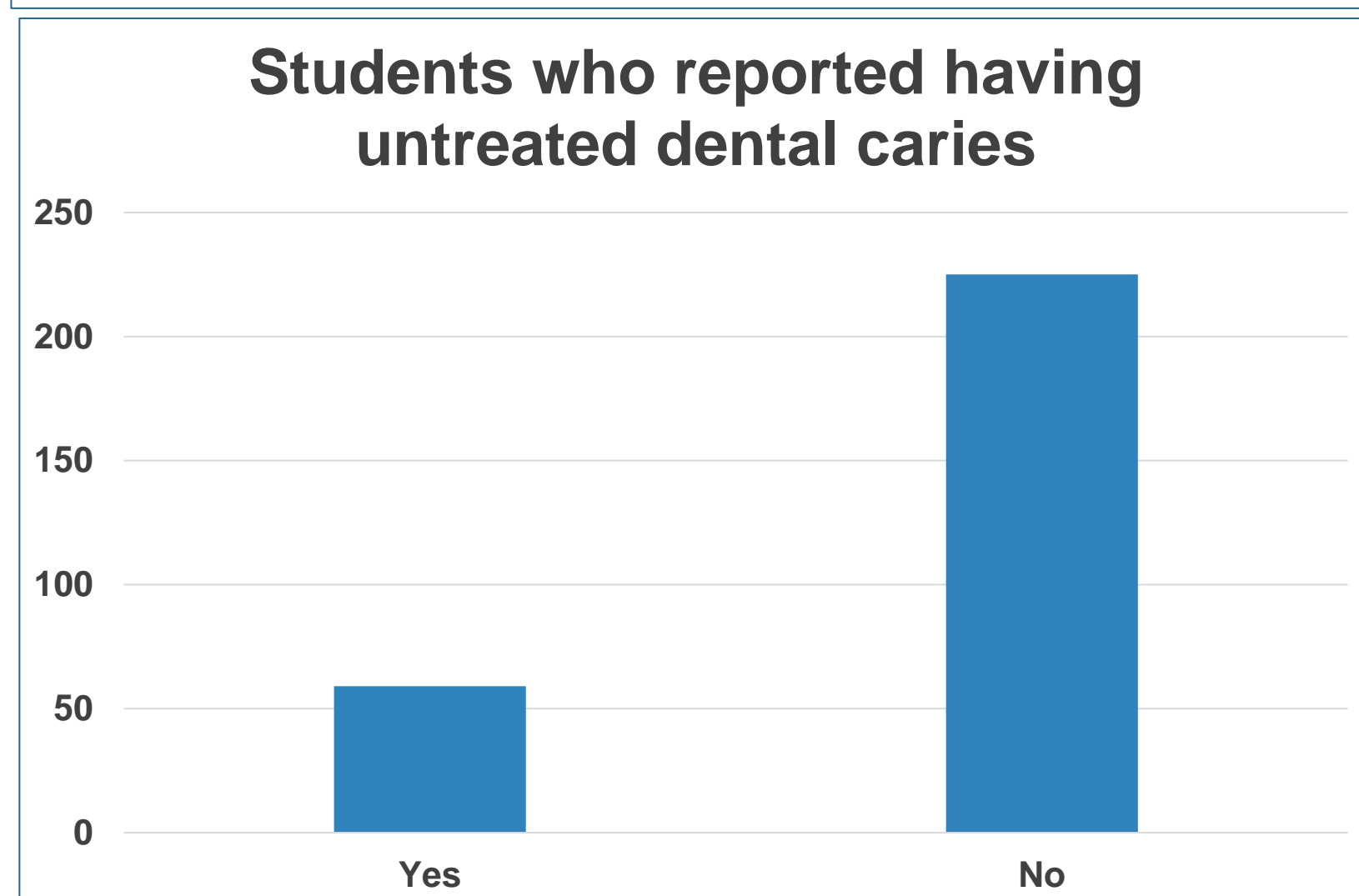
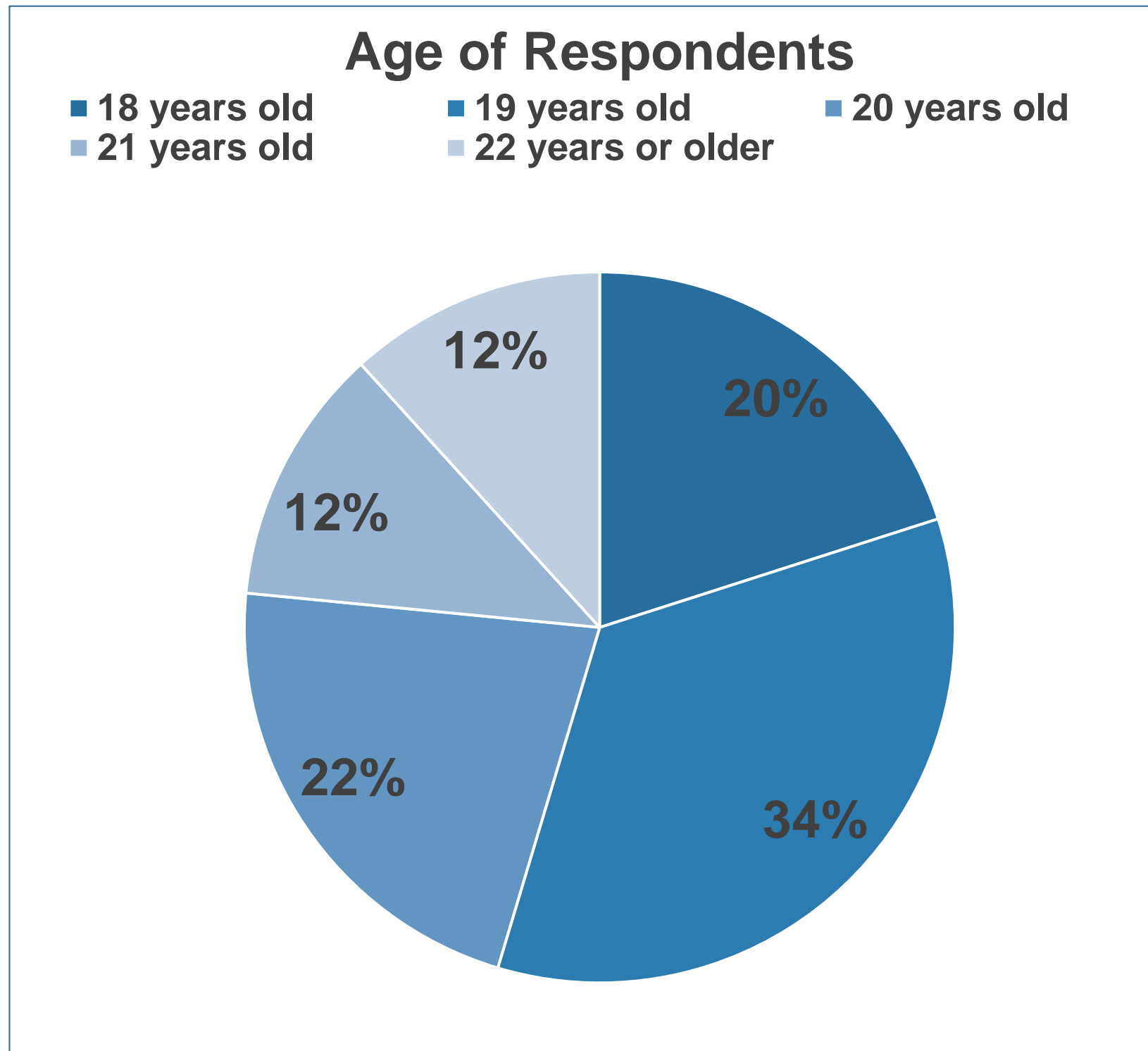
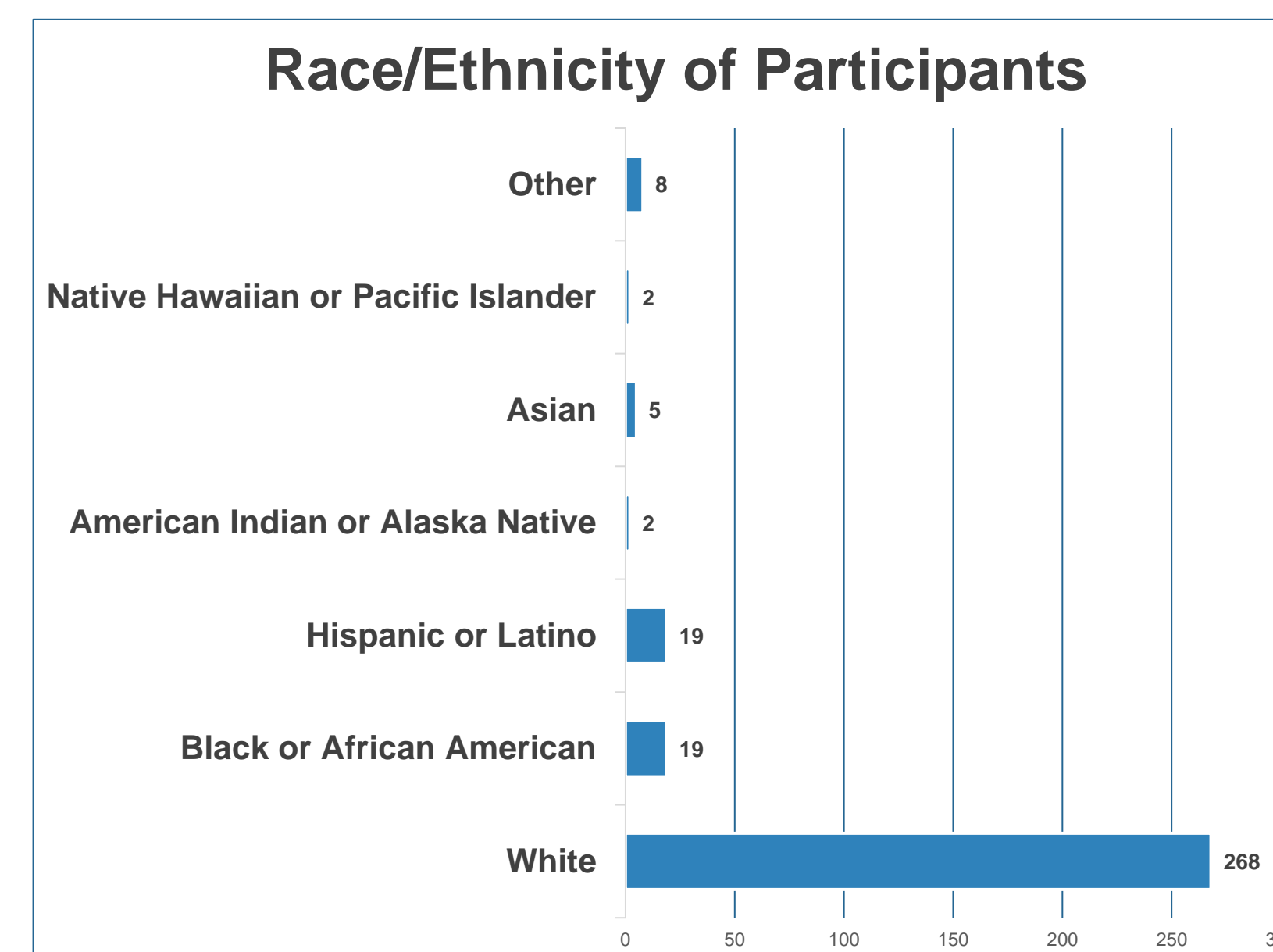
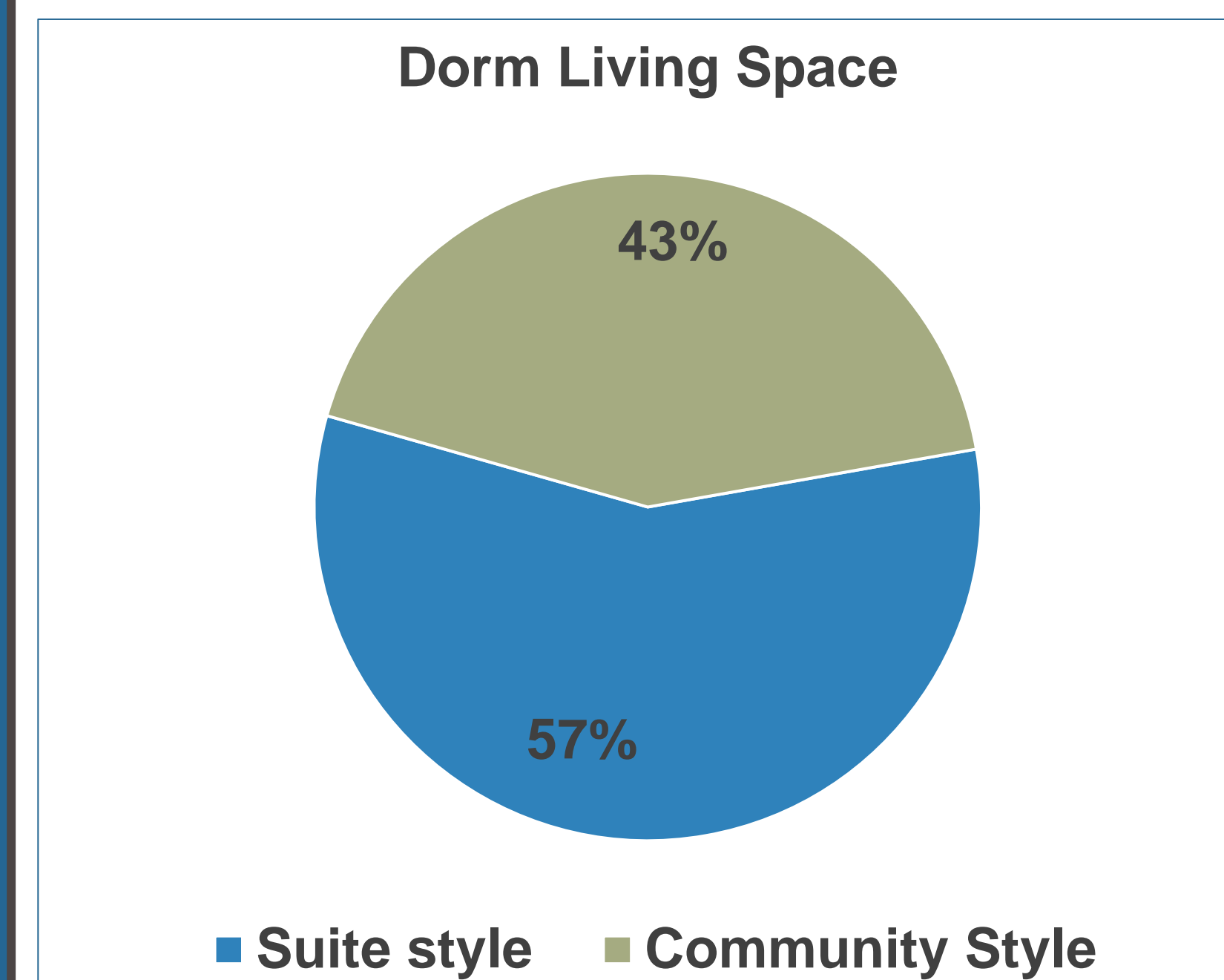
RESULTS: DATA & GRAPHICS

Oral health behaviors/ dental caries	Suite Style n=161	Community Style n=122	χ^2	P-value
Brushing	148	97	9.21	0.002*
Flossing	90	61	.97	.324
Dental caries	33	25	0.0	.99

*p<.05

Oral health behaviors/ dental Caries	Male n=49	Female n=202	χ^2	P-value
Brushing	43	185	0.69	0.41
Other Cleaning Aids	23	117	1.93	.17
Dental caries	5	42	2.91	.09

*p<.05



RESULTS AND DISCUSSION

Students who reside in suite style dorms will have a higher frequency brushing, flossing, and lower prevalence of dental caries, compared to students who live in community style rooms.

- The study showed a statistically significant difference (p<.05) between dorm styles and brushing teeth with the proportion of suite style residents reporting more brushing, $\chi^2(1, n=283)=9.21, p= 0.002$. The study showed that there was no statistically significant difference between dorm style and flossing, $\chi^2(1, n=283)=0.971, p= 0.324$, or between dorm style and self-reported dental caries, $\chi^2(1, n=283) <.0001, p= 0.99$.

Students who identify as females will have better oral hygiene behaviors than students who identify as males.

- The study showed no statistically significant difference (p<.05) between males/females and brushing, $\chi^2(1, n=251)=0.69, p= 0.69$. Additionally, there was no statistically significant difference (p<.05) between males/females reporting they used other cleaning aids $\chi^2(1, n=283)=1.93, p= 0.17$. Lastly, there was no statistical significance (p<0.05) in results between males/females and prevalence of self-reported dental caries $\chi^2(1, n=283)=2.91, p= 0.09$.

Other findings

- Results of the study revealed that the self reported prevalence of dental caries was 20% among survey participants.
- 10% of males reported dental caries compared to 20% of females
- 73.4% of students reported that their oral health played a role in self confidence and how they looked or felt.

Implications and Recommendations

- Whether students live in a suite style or community style dorm affects brushing teeth behaviors. However, whether a student lives in a suite style or community style dorm does not affect flossing behaviors or number of self reported dental caries.
- Gender does not seem to play role in oral health behaviors or self reported dental caries.
- Future studies should investigate oral health behaviors based on age and/or race/ethnicity. Another focus should be on assessing oral health knowledge in students residing in on campus dorms. Additionally, further studies can look at overall general perceptions of their oral health.

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