

Are We There Yet? The Impact of Accessibility on Physical Activity Among UCSD Undergraduate Students

Hans Viola, Julie Ye, Jamie Ly

UC San Diego Herbert Wertheim School of Public Health and Human Longevity Science



Objective: To determine how physical, perceived, and temporal accessibility is associated with physical activity levels among UCSD undergraduates

Background

- Outcome of physical activity is an important contributor to the health and well-being of college students
- Past research found that 1 in 5¹ university students are overweight, and 1 in 10 are obese¹
- Physical activity provides many benefits to college students like lowering risk for stress, anxiety, depression, and obesity^{1,2}
- Existing research mainly focused on geographic accessibility of recreational facilities like proximity to students' housing³, whereas our study explores multiple dimensions of accessibility rather than only one
- Accessibility of recreational facilities impacts severity and level of physical activity

Methods

- Cross-sectional study
- Utilized Google Forms survey
- Anonymous responses from UCSD undergraduate students
- Utilized convenience sampling via QR code, word of mouth, and flyers
- Exposure is categorized into temporal, physical, and perceived accessibility, and questions asked about accessibility in RIMAC and Main Gym
- Outcome for physical activity was measured with questions that used the *Utilized Rate of Perceived Exertion* (RPE) scale⁴ to measure participants' perception of severity of their physical activity (scale from 1 = minimal intensity to 4 = maximum intensity), workout session's length (minutes), and satisfaction
- Utilized SPSS v29 to perform chi-square analyses

Results

Table 1. Demographics (N = 78)

Age Group	18-20 years old	36
	21-23 years old	40
	24-26 years old	2
Gender	Female	54
	Male	23
	Non-binary	1
Year	First-year (Freshman)	19
	Second-year (Sophomore)	11
	Third-year (Junior)	18
	Fourth-year (Senior)	30
Housing Status	On-campus	38
	Off-campus	40

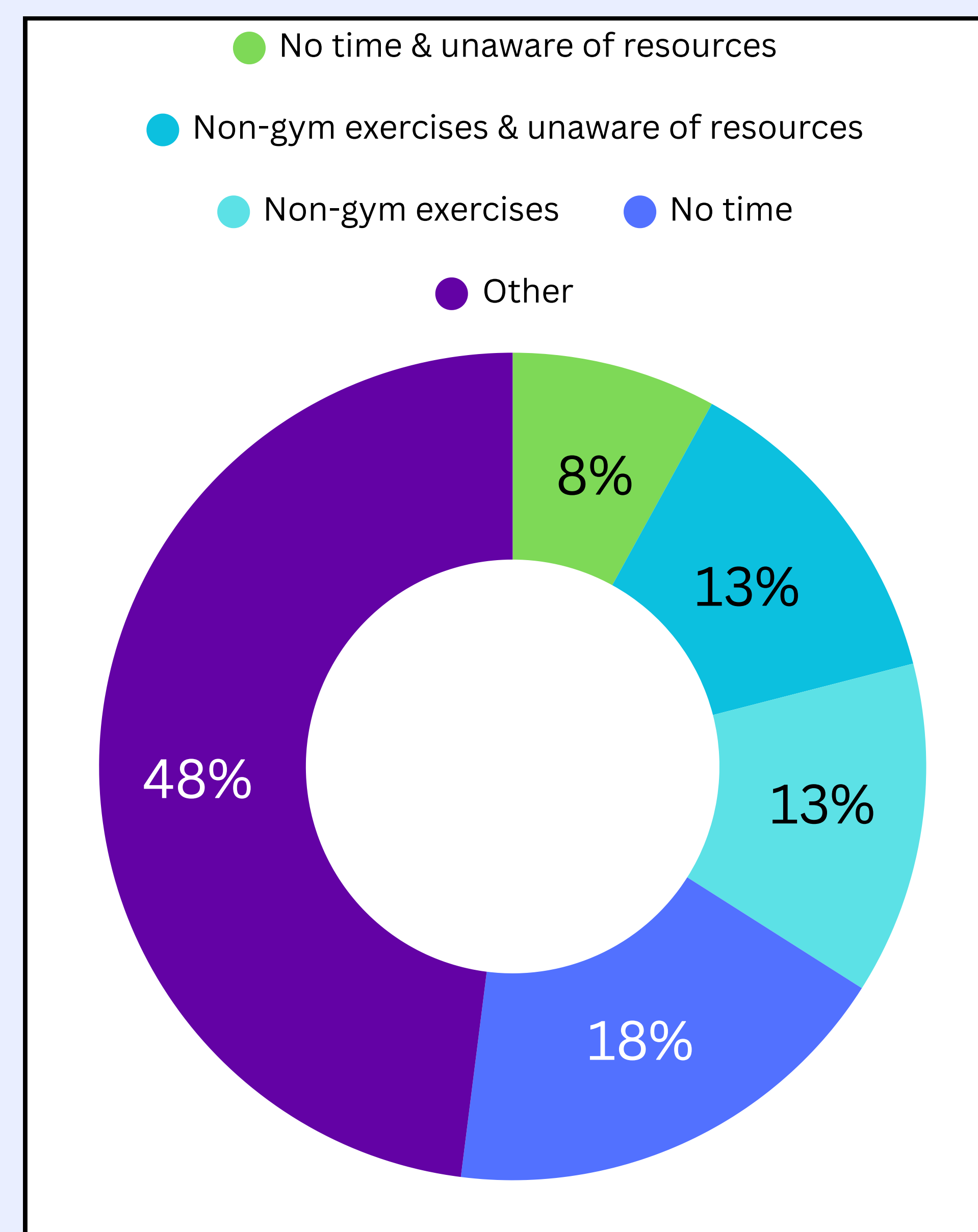


Figure 4. Reasons UCSD Undergraduates Don't Use On-Campus Gyms Donut chart shows the top four responses and students can select multiple reasons. Other includes less common responses

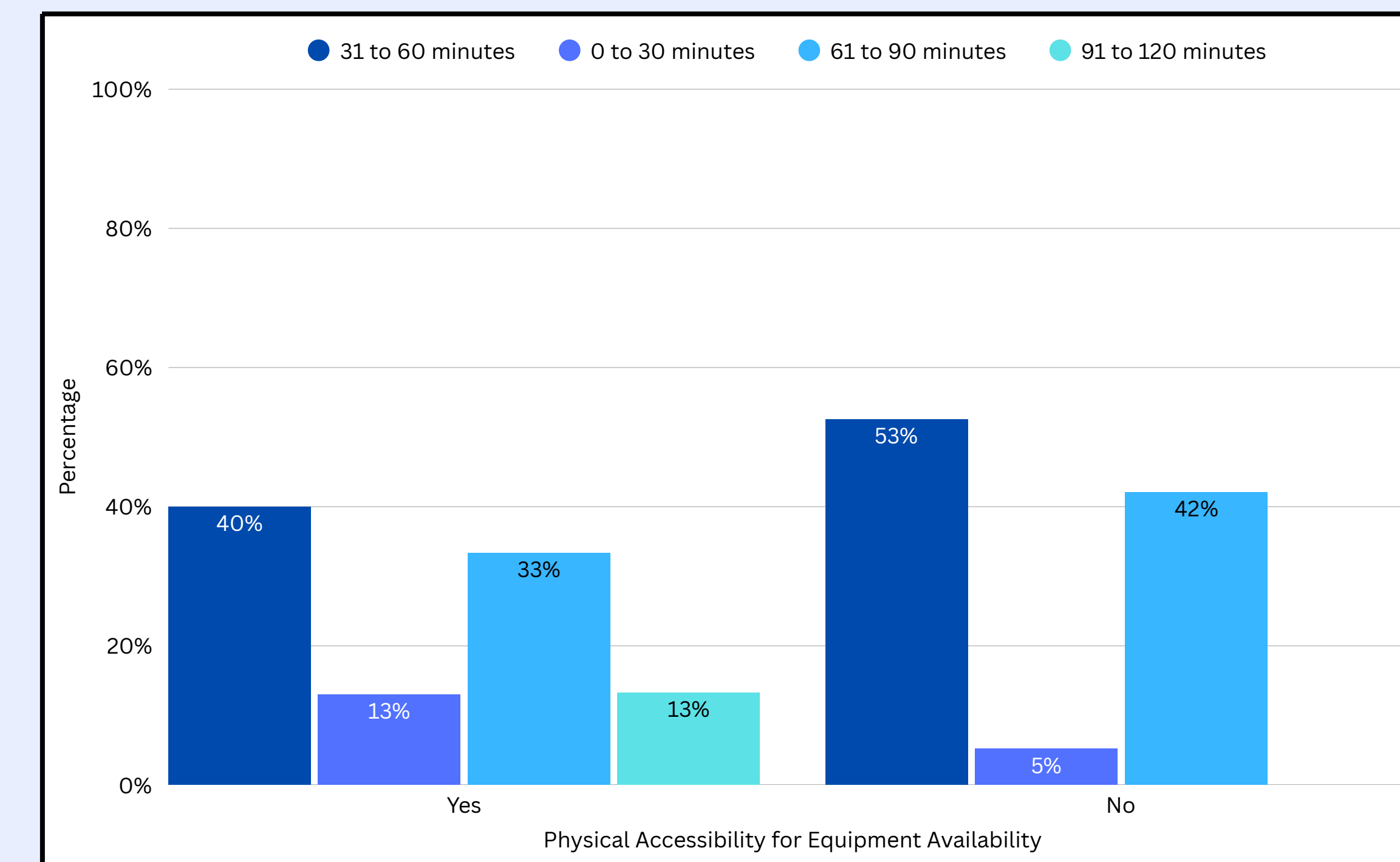


Figure 1. Physical Accessibility for Equipment Availability and Length of Workout Sessions Chi-square test showed an insignificant relationship between physical accessibility and length of workout sessions ($p < 0.307$)

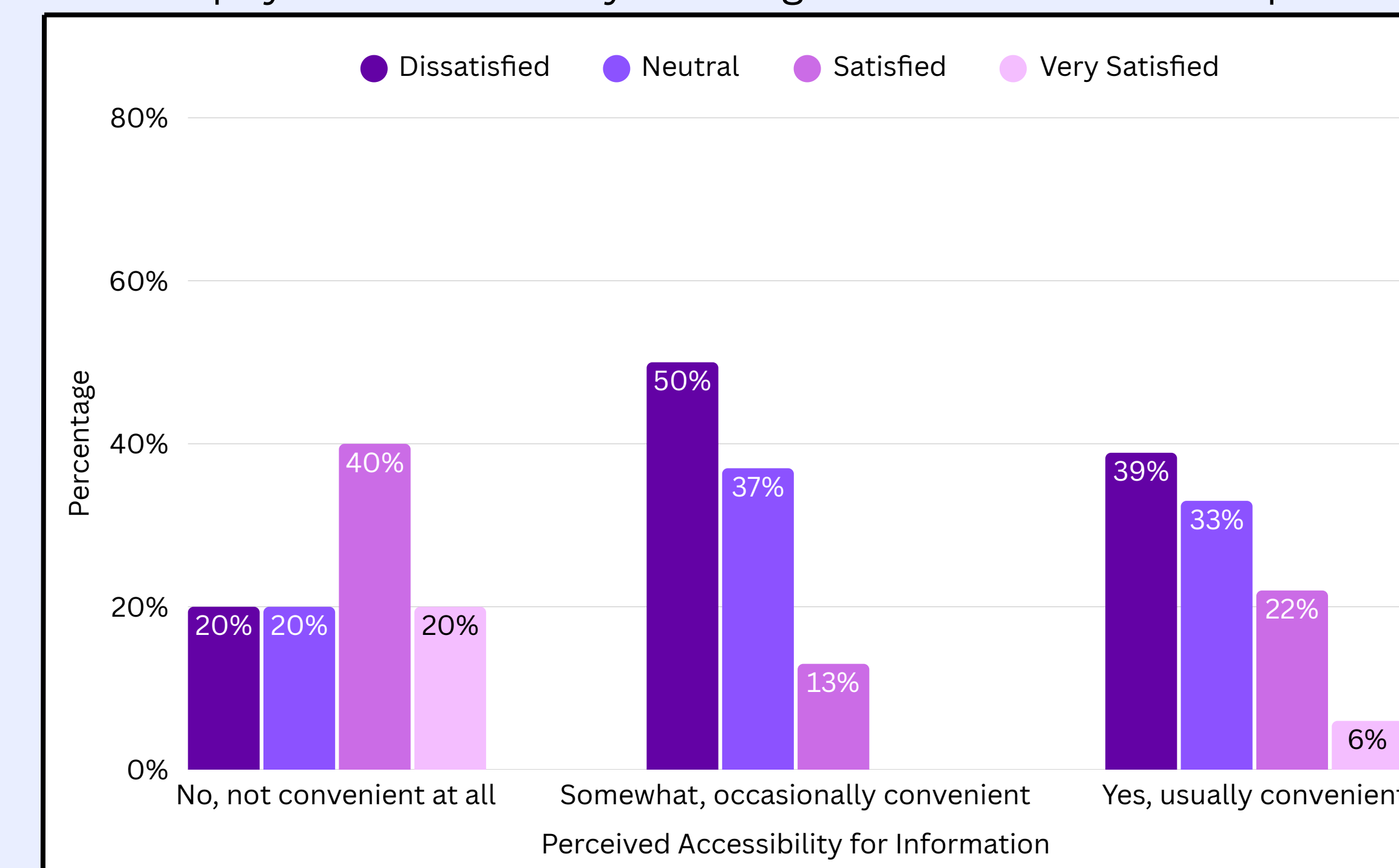


Figure 2. Perceived Accessibility for Information and Satisfaction for Physical Activity Level Chi-square test showed an insignificant relationship between perceived accessibility and satisfaction for the current physical activity level ($p < 0.463$)

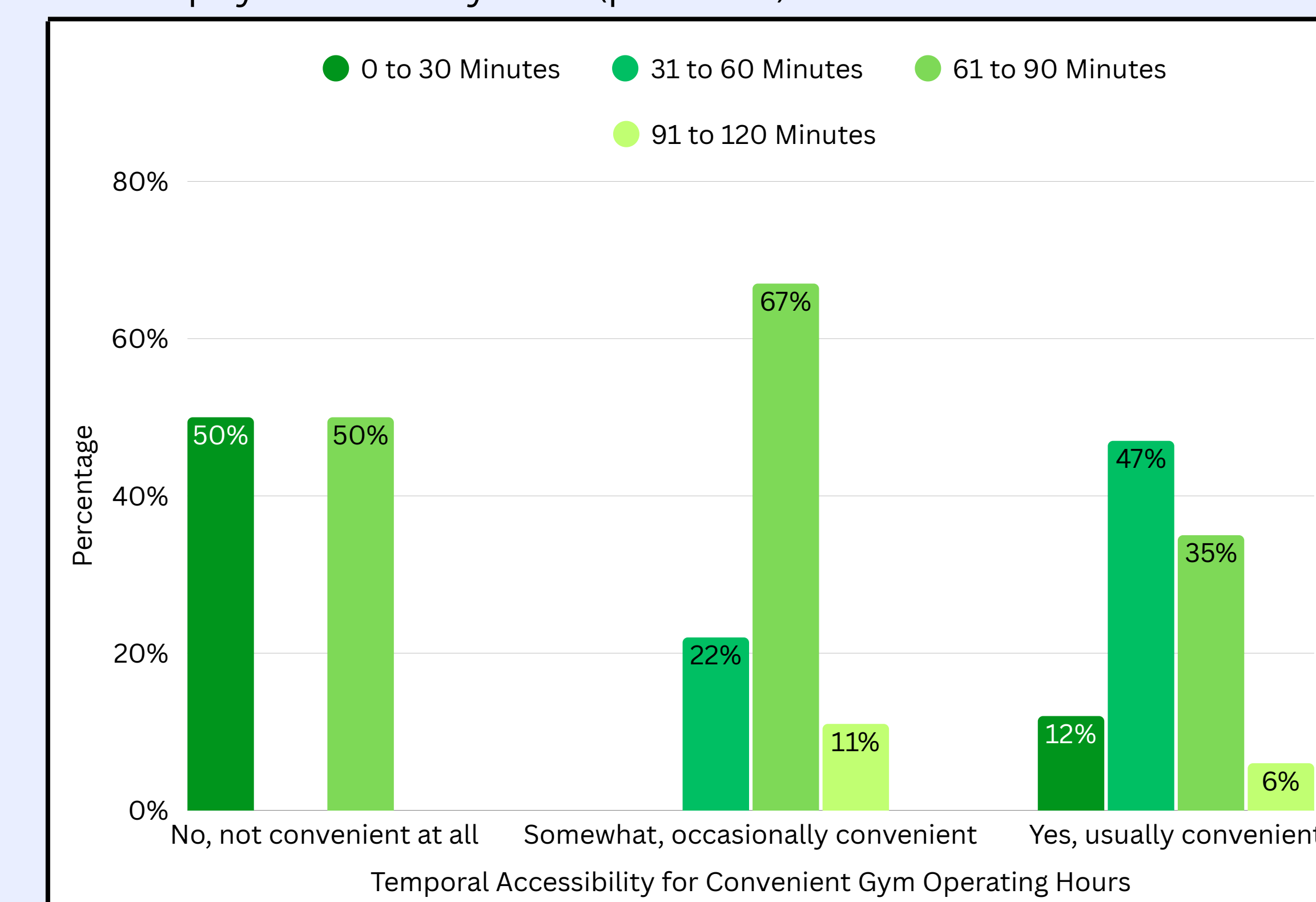


Figure 3. Temporal Accessibility for Convenient Gym Operating Hours and Length of Workout Sessions Chi-square test revealed a statistically significant relationship between temporal accessibility and workout length ($p < 0.001$)

Conclusions

- Among the three types of accessibility, only temporal accessibility was statistically significant, with lower temporal accessibility tied to shorter workout sessions, indicating temporary accessibility is negatively associated with physical activity levels among UCSD undergraduates
- Temporal accessibility was found to be the only statistically significant factor because it likely functions as a consistent barrier, such as limited gym hours and schedule conflicts, which restricts students' ability to engage in physical activity
- Previous research shows lower accessibility leads to lower physical activity for students with physical disabilities⁵
- Findings highlight how accessibility barriers, such as limited time or busy schedules, can reduce levels of physical activity
- Top three reasons for students who don't use on-campus recreational facilities:
 - Lack of time to work out on campus
 - Preference for non-gym exercises
 - Being unaware of resources available

Policy Implications

- Extend on-campus recreational facility hours from 6 am - 11 pm to 5 am - 12 am on weekdays to better fit students' schedules
- Have UCSD Recreation staff create and provide a weekly digital newsletter that discusses on-campus recreational facilities, detailing available equipment and resources to promote utilization

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References:

