

Risk Perception of Cardiovascular Disease by Smoking Status in People aged 18-35

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Objective

This study aims to evaluate the differences in cardiovascular disease (CVD) risk perception by smoking status.

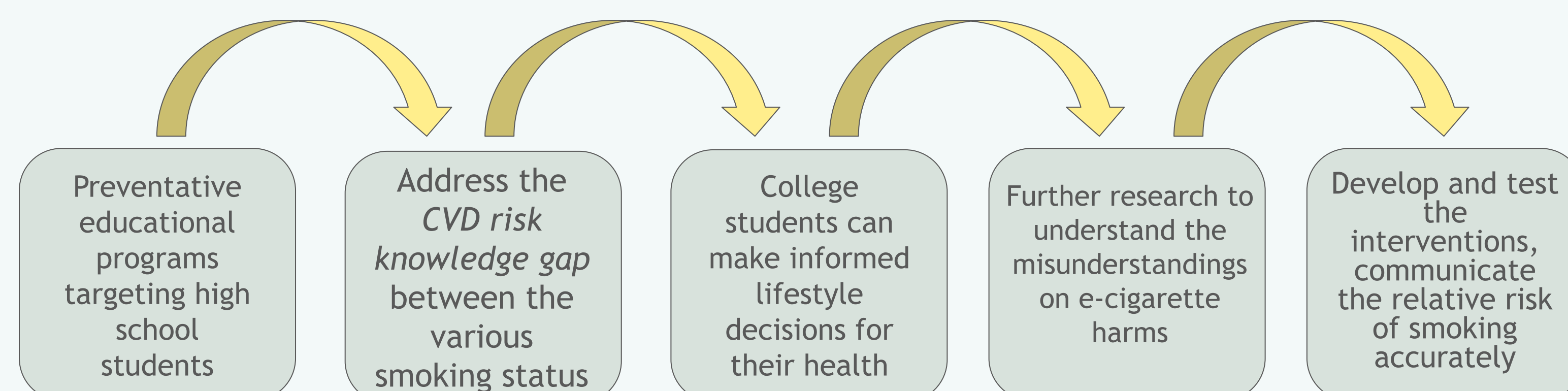
Introduction/Background:

- Research and public health efforts have focused on the link between smoking and various health issues, particularly heart-related ailments (Parmar et al., 2023).
- Smoking directly contributes to severe health conditions, with cardiovascular diseases alone causing approximately 500,000 deaths annually in the U.S. (Gallucci et al., 2020).
- When comparing projection counts for the years 2025-2060, it is expected the projected number of people with hypertension will increase by 27.2%, myocardial infarction by 30.1%, and stroke by 34.3% (Mohebi et al., 2022).
- College students acknowledge smoking's association with lung cancer, heart disease, and respiratory issues, however their *grasp of the severity and immediacy of these risks varies* (Mustafa et al., 2023; Berg et al., 2015).
- Shifting social norms have contributed to **increased** tobacco use, with college students often **underestimating** nicotine addiction and the health impacts of occasional smoking (Berg, 2015).

Materials/Methods

- This study used a *structured questionnaire survey* for the collection of data to determine people's e-cigarette/cigarette use and their risk perceptions of cardiovascular disease (CVD), with a targeted population of those aged 18 through 35.
- The online survey was mostly distributed through word of mouth.
- This *cross-sectional study* was taken between April 23rd, 2024, and May 6th, 2024.
- An ANOVA Test followed by a Tukey HSD post hoc test were done to analyze the data. F-statistics were calculated for the comparison of people's tobacco/nicotine usage compared to CVD risk perceptions.
- There were 162 respondents, of which 19 were disregarded due to incompleteness.

Policy Implications:

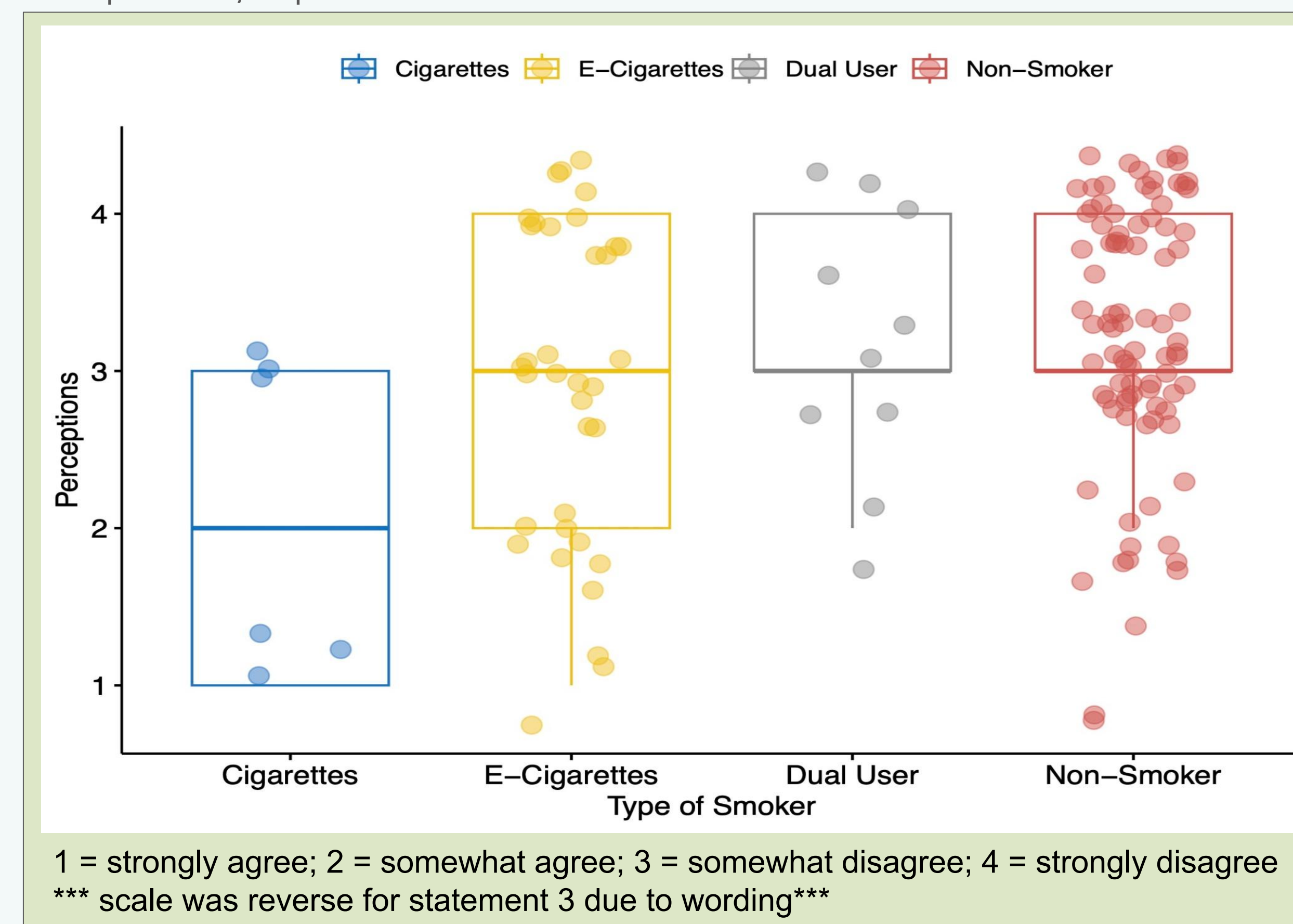


Results:

- **Statement 1:** "I feel I *will* suffer from a heart attack or stroke sometime during my life."
- **Statement 2:** "I am *concerned about the likelihood* of having a heart attack or stroke in the near future."
- **Statement 3:** "I am not worried that I might have a heart attack or stroke."
- **Statement 4:** "I will likely have a heart attack or stroke because of *my past and/or present behaviors*."

Statements	F-values	p-values
1	F(3,138) = 2.44	p = 0.067
2	F(3,138) = 1.48	p = 0.223
3	F(3,138) = 0.62	p = 0.606
4	F(3,138) = 4.14	p = 0.008

Figure 1: Concern that person will likely have a heart attack or stroke because of their past and/or present behavior



A Tukey HSD analysis on Statement 4 shows further insight

Table 1: Results of Tukey HSD Analysis of Statement 4

Groups	Estimate [95% CI]	Adj. p-value
Dual Users vs Cigarettes	1.2[0.05, 2.35]	0.037
E-Cigarettes vs Cigarettes	0.97[-0.01, 1.95]	0.054
Non-Smokers vs Cigarettes	1.21[0.28, 2.15]	0.005
E-Cigarettes vs Dual Users	-0.23[-1.03, 0.57]	0.879
Non-Smokers vs Dual Users	0.01[-0.73, 0.76]	>0.999
Non-Smokers vs E-Cigarettes	0.24[-0.2, 0.69]	0.490

Conclusion:

- Tukey HSD post hoc test result showed that cigarette users were **more likely** to be concerned that they will have a heart attack or stroke due to their past and/or present behaviors compared to dual users (p=0.037).
- Comparison between non-smokers and cigarette smokers showed that there was a **significant difference** in that non-smokers were more likely to be concerned about CVD because of past and/or present behaviors compared to dual users (p=0.005).
- There was **no significant difference** between risk perceptions based on whether the individual smokes unless when comparing non-smokers to cigarette users and their concerns about CVD due to behavior.
- As for the rest, the Tukey HSD post hoc test results showed **no significant difference/correlation** found between any groups for statements 1 through 3.

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Check Out Our Survey

