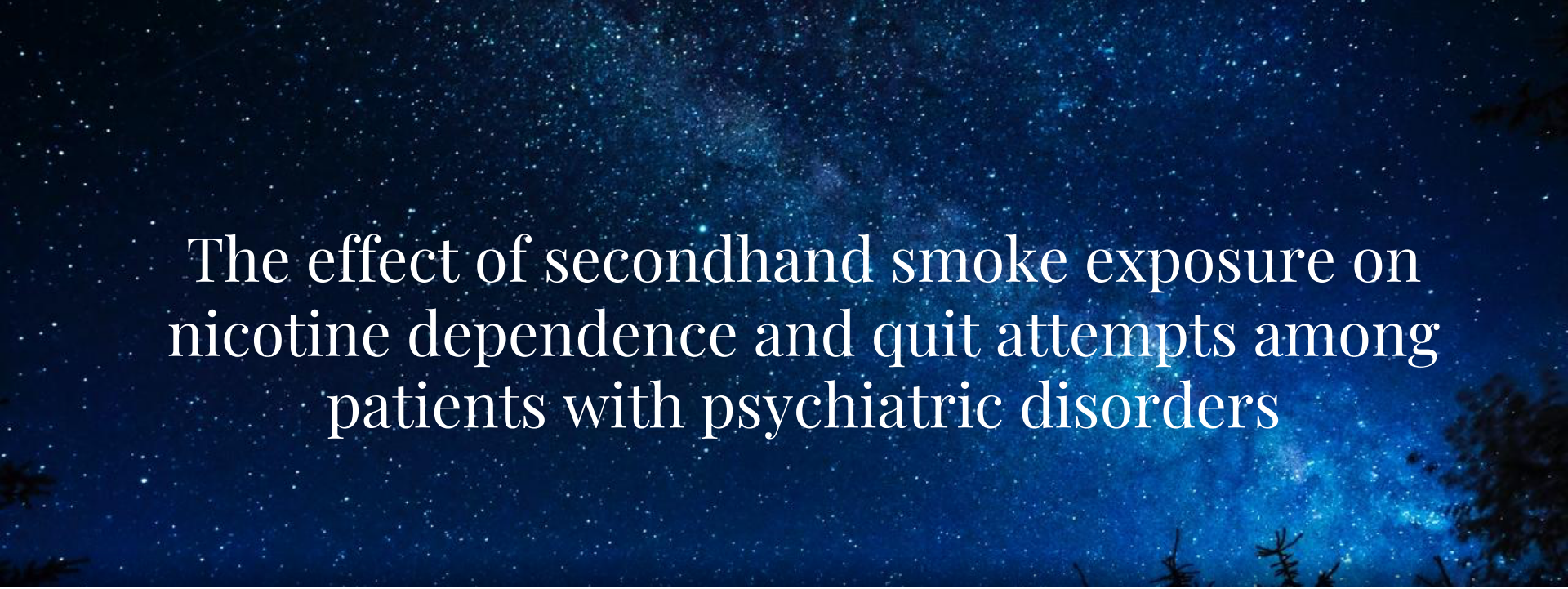

The effect of secondhand smoke exposure on nicotine dependence and quit attempts among patients with psychiatric disorders

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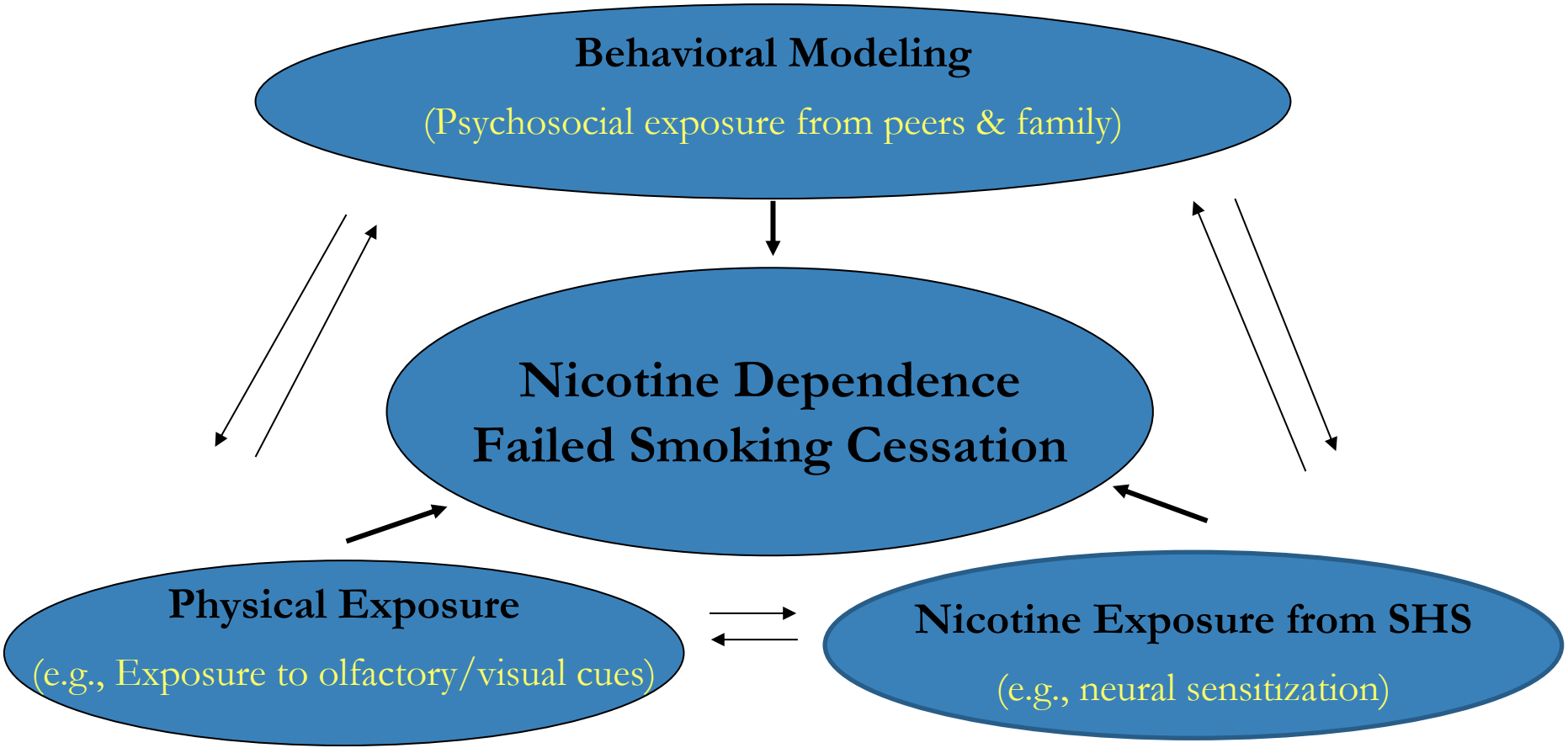
Secondhand Smoke (SHS)

- 25.3% of non-smokers exposed in the U.S.
  - 43.2% of those living below poverty
- No known ‘safe’ level of exposure
  - 41, 000 annual deaths among nonsmoking adults
- High tobacco use rates, disease, and mortality among people with psychiatric disorders (PD), but poor documentation of:
  - Rates of SHS exposure
  - Behavioral and physical health effects of SHS exposure

Homa, et al., (2015). Vital signs: disparities in nonsmokers' exposure to secondhand smoke--United States, 1999-2012. *Morbidity and Mortality Weekly Report, 64*(4), 103-108.

U.S. Department of Health and Human Services. (2014). *The health consequences of smoking-50 years of progress: A report of the surgeon general.* Retrieved from Atlanta, GA:

SHS, nicotine dependence, and smoking cessation



Anthonisen, N., & Murray, R. (2005). A new childhood pathway for transmission of an increased likelihood of smoking? *Canadian Medical Association Journal, 173*(4), 382-383.
Okoli & Kodet. (2015). A systematic review of secondhand tobacco smoke exposure and smoking behaviors: Smoking status, susceptibility, initiation, dependence, and cessation. *Addict Behav, 47*, 22-32

Specific Aims

Purpose: To examine associations between SHS exposure, nicotine dependence (ND), and smoking cessation (SC) among people with psychiatric disorders

Aims: Among patients from a psychiatric hospital, the specific aims were to:

1. Quantify SHS exposure by sources
2. Examine associations between SHS exposure with ND
3. Examine associations between SHS exposure and SC attempts

Methods

- Cross-sectional analysis using survey data
  - Surveys administered between March 1st –December 20th, 2016
  - 15-20 minute questionnaire
- A convenience sample of tobacco using patients
  - 18 years and older
  - After 48 hours of admission, could provide informed consent
  - N = 118 participants
- Statistical Analyses
  - Associations between SHS and ND: Multivariate linear regression (controlling for demographic and tobacco use history)
  - Associations between SHS and SC attempts: Multivariate logistic regression (controlling for demographics and tobacco use history)

Measures

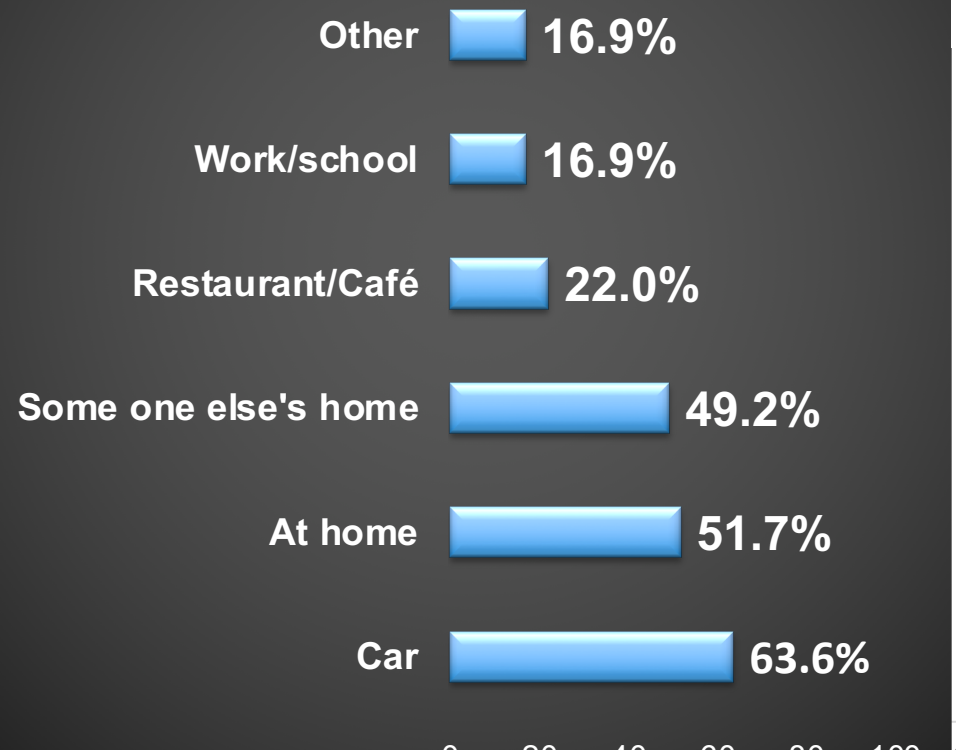
Demographics	Age, sex, education, ethnicity, marital status, history of substance use disorder treatment (yes vs. no), type of health insurance, and work status
Psychiatric Diagnosis	Psychotic vs. major depressive disorder vs. bipolar disorder vs. anxiety and cognitive disorders vs. substance use disorder (SUD)
Tobacco Use & Motivation to Quit	Age of tobacco use initiation, average amount of cigs per day, and motivation to quit smoking (importance, confidence, and readiness)
SHS Exposure	Environmental (Restaurant, car, house, other's house, work/school, other; Range: 0 to 6) Psychosocial (Spouse/partner, parent, sibling, child, best/close friend; Range 0-5) Perceived Frequency (On a scale of 0 'none' to 10 'all the time')
ND	Fagerstrom Test for Cigarette Dependence (6-items, on scale of 0 to 10)
SC attempts	Made serious attempt to quit in last year (yes vs. no)

Sample Description

- Average 43 (SD=14.0) years of age
- Equally distributed by gender
- White (87.3%)
- High School graduates (72.0%)
- Psychotic disorder (39%), Bipolar disorder (27.1%), Depressive disorder (19.5%)
- On average 1 pack per day.
- Fagerstrom Test for Cigarette Dependence: Mean=5.8; SD=2.6

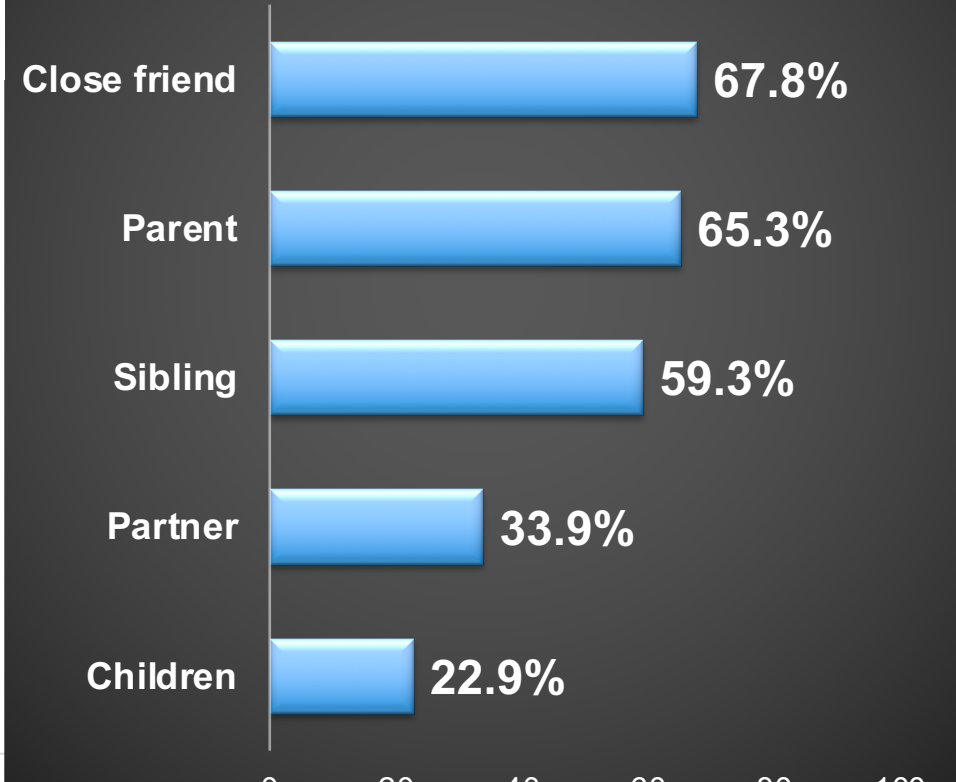
Environmental SHS Exposure

(Summary score: M=2.2, SD=1.5)



Psychosocial SHS exposure

(Summary score: M=2.5, SD=1.4)

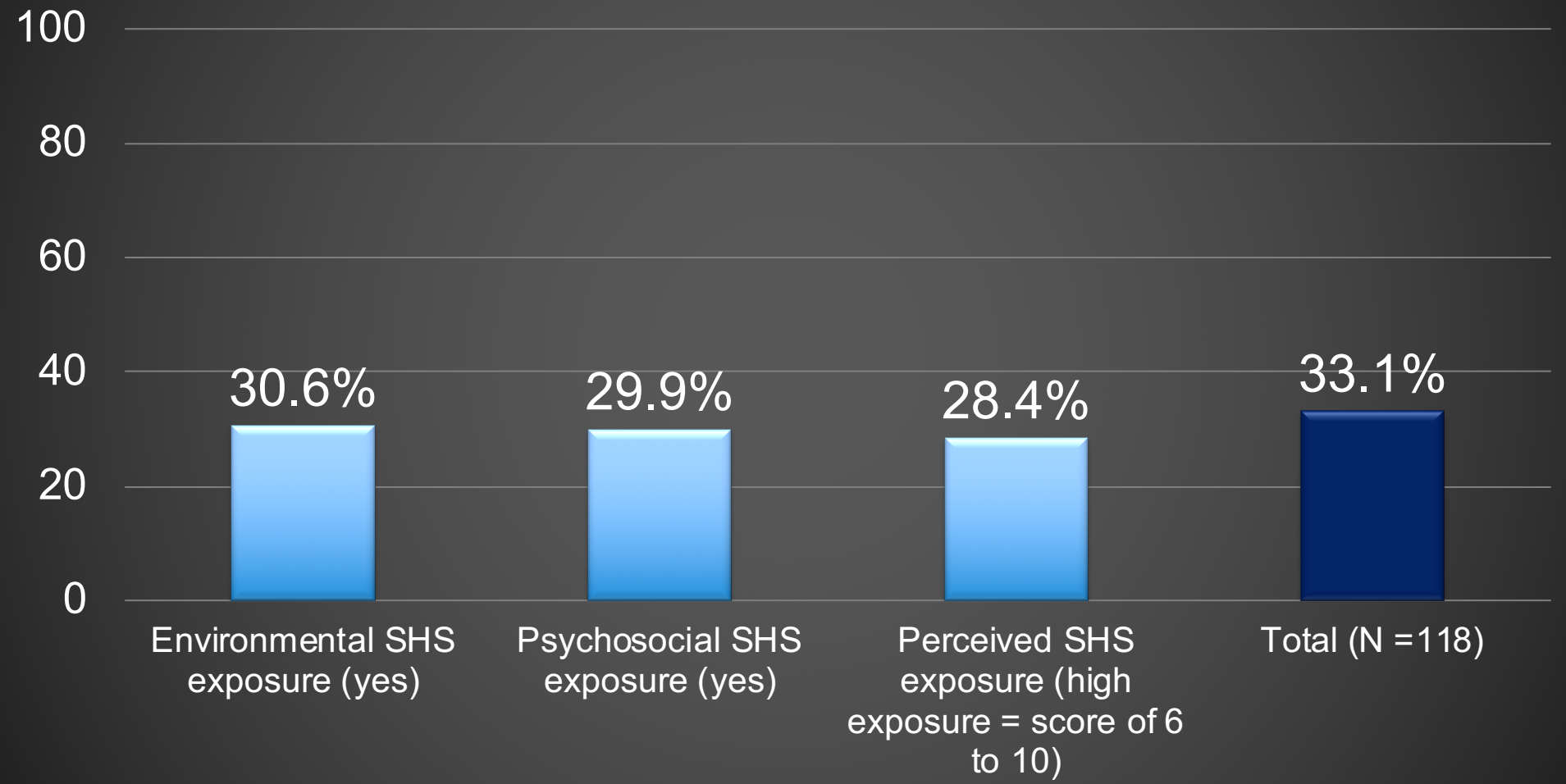


Univariate and Multivariate associations between SHS and ND

	Univariate				Multivariate* (Adj. R2=.18, F=9.77, p <.0001)			
	B (std. error)	**Beta**	**t**	**p-value**	**B (std. error)**	**Beta**	**t**	**p-value**
Environmental	.35 (.15)	.21	2.28	.025	.27 (.14)	.16	1.88	.063
Psychosocial	.53 (.17)	.28	3.10	.002	.29 (.17)	.15	1.70	.091
Perceived	.29 (.06)	.39	4.51	<.0001	.25 (.06)	.34	3.85	<.0001

* Controlling for demographics, tobacco use and motivation to quit, and psychiatric diagnosis

SC attempts in past year by SHS exposure



Discussion

- Key findings from our survey are:
  - Primary source of environmental exposure is the car
  - Primary source of psychosocial exposure are close friends
  - High self-reports of SHS exposure (M=6.2, SD=3.5)
  - High self-perception of SHS exposure associated with ND
  - SHS exposure not associated with SC attempts
- Implications of our study are:
  - SHS should be assessed during psychiatric hospitalizations
  - Strategies to limit exposure should be discussed with patients
- Future Studies:
  - Compare SHS exposure in both smokers and nonsmokers
  - Incorporate objective SHS exposure measures (e.g., hair nicotine, saliva cotinine)

Limitations

- Cross-sectional analysis based on self-report
- Did not include objective measures of SHS exposure
- Convenience sample with self-reported data

Thank you!

Questions?