

Introduction

- Individuals living with mental illnesses are a vulnerable population with high tobacco use rates, high nicotine dependence, and disproportionate tobacco-related morbidity and mortality (Prochaska, Das, Young-Wolff, 2017).
- Nicotine exposure from SHS may modulate the maintenance of smoking behaviors through neuroadaptations in the reward circuitries of the brain leading to dependence; independently, secondhand tobacco smoke exposure (SHSe) is associated with greater failed smoking cessation attempts and greater incidents of relapse (Anthonisen & Murray, 2005; Okoli & Kodet, 2015).
- Few studies have quantified SHSe among individuals living with mental illnesses and little is known about its impact on nicotine dependence or smoking cessation in this population.

Objectives

Among tobacco users living with mental illnesses, the objectives of this study were to:

- 1) Quantify secondhand tobacco smoke exposure and
- 2) Examine the associations between SHSe, nicotine dependence, and smoking cessation attempts

Methods

Design and Sample

- A cross-sectional survey (15-20 minutes) was conducted with 118 tobacco-users in an inpatient psychiatric facility.

Measures

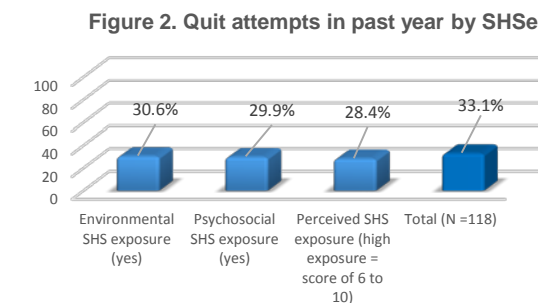
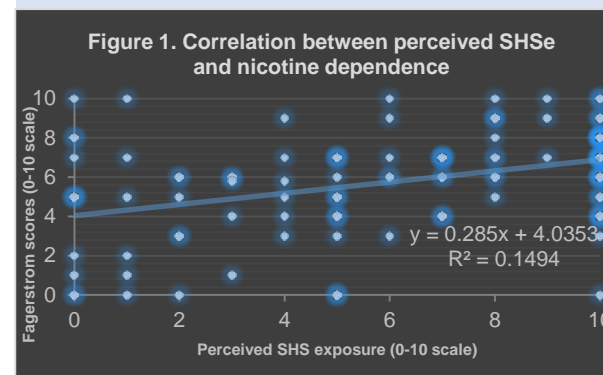
- Demographics (sex, ethnicity, education level, marital status, age)
- Tobacco use history (Initiation age, cigs per day, motivation to quit)
- Secondhand tobacco smoke exposure (environmental, peer & family, perceived exposure)
- Nicotine dependence (using Fagerstrom Test for Cigarette Dependence)
- Smoking cessation attempts (in the past year).

Data Analysis

- Multivariate linear regression analyses for the association between SHSe and nicotine dependence
- Multivariate logistic regression analysis for the associations between SHSe and smoking cessation attempts (yes vs. no).

Results

- Primary **environmental SHSe** source was in the car (63.6%); the primary **psychosocial SHSe** source was close friends (67.8%), and participants had moderate **perceived SHSe** scores.
- When controlling for other variables in multivariate linear regression analysis, only **perceived SHSe** was associated with nicotine dependence ($\beta = .34$, $t = 3.85$, $p < .0001$) (see Figure 1).
- When controlling for other variables in multivariate logistic regression analysis, **no SHSe** variables were associated with a serious cessation attempt in the previous year (see Figure 2).



Conclusions

- Individuals living with mental illnesses who use tobacco products may encounter high SHSe, placing them at risk for higher levels of ND.
- Perceived SHSe is a significant predictor of greater ND scores when compared to other exposure measures. However, it may not be associated with smoking cessation attempts among those with mental illnesses

References

1. Prochaska, J. J., Das, S., & Young-Wolff, K. C. (2017). Smoking, mental illness, and public health. Annual review of public health, 38, 165-185.
2. Anthonisen, N., & Murray, R. (2005). A new childhood pathway for transmission of an increased likelihood of smoking? CMAJ, 173(4), 382-383. doi:10.1503/cmaj.050704
3. Okoli, C. T., & Kodet, J. (2015). A systematic review of secondhand tobacco smoke exposure and smoking behaviors: Smoking status, susceptibility, initiation, dependence, and cessation. Addictive behaviors, 47, 22-32.