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Lung Cancer Survivors Who Continue Smoking After Diagnosis Are More Likely to be Living With an Individual who Smokes

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INTRODUCTION

In the United States, lung cancer is the leading cause of cancer death in both men and women. Smoking increases the risk for lung cancer, while smoking cessation after diagnosis improves cancer survival and lowers rates of recurrence. Using the Theory of Planned Behavior (TPB), we examined individual attitudes, perceived control, and subjective norms as predictors of lung cancer survivors' intention to quit smoking. Consistent with prior work (McClenahan et al., 2007), smoking history was used to determine whether a patient quit smoking.



METHOD

We conducted a secondary data analysis to examine attitudes, perceived control, and subjective norms of smoking in a sample of lung cancer survivors ($N = 171$). Analyses were limited to those with a smoking history (i.e., former smokers [$n = 139$] and current smokers [$n = 32$]). Chi-square goodness-of-fit tests and independent-samples t -tests were utilized to examine how group differences in smoking history predict theory-related factors of intention to quit smoking (i.e., individual attitudes, perceived control, and subjective norms).

Questions asked representing TPB factors:

- **Attitude:** Have you ever stopped smoking for one day or longer because you were trying to quit smoking?
- **Subjective Norm:** Do you currently live with someone who smokes regularly?
- **Perceived Behavioral Control:** How much effort were you making to reduce exposure (to my own smoking)?

RESULTS

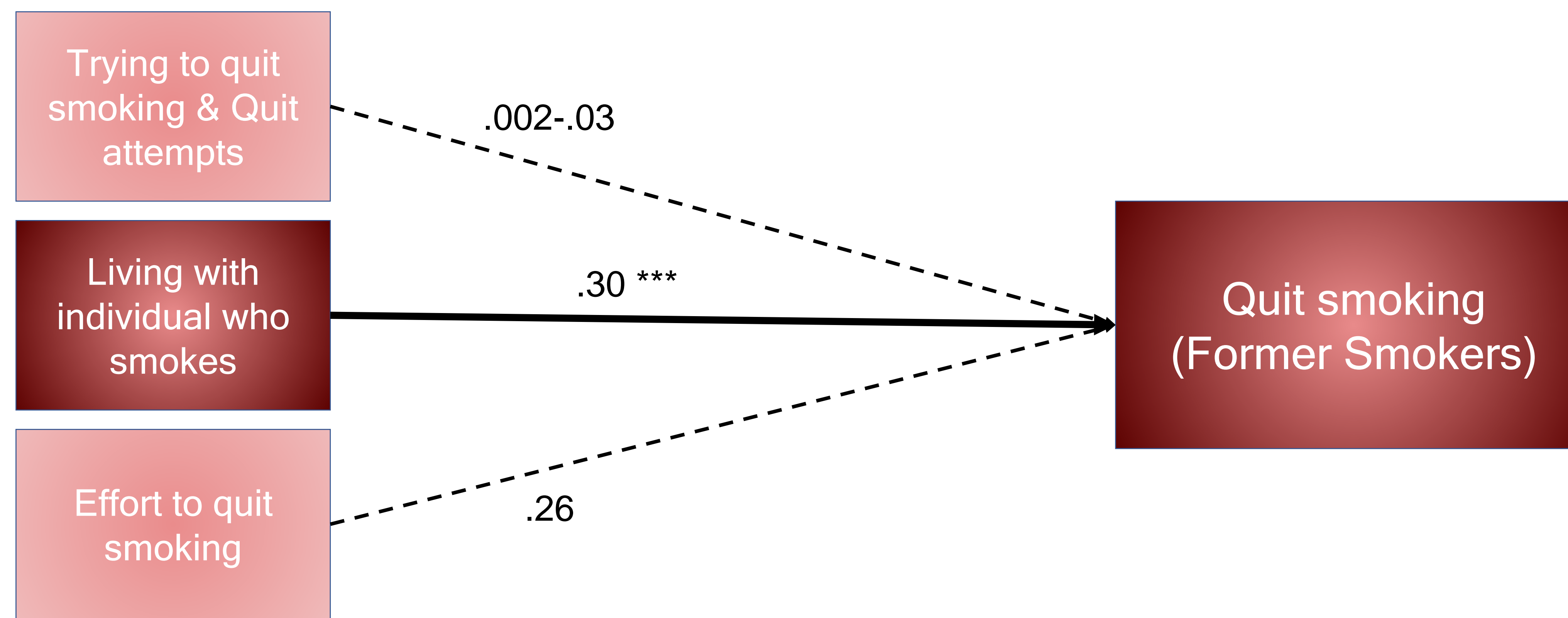


Figure 1. Theory of Planned Behavior (TPB) adapted to predict quitting smoking among lung cancer survivors. NOTE: Variables with dashed lines represent non-significant predictors of whether lung cancer survivors quit smoking. Solid line represents the significant predictor ($p < .001$, represented by ***). Numbers represent effect sizes.

Table 1. Demographics characteristics of the study sample

Variables	Current Smokers ($n = 32$)		Former Smokers ($n = 139$)	
	$n(\%)$	$M(SD)$	$n(\%)$	$M(SD)$
Sex (Female)	19(59.4%)	---	75(54.0%)	---
Age (years)	---	64.37(9.06)	---	68.18(10.63)
Education (years)	---	12.88(2.62)	---	13.27(2.57)
Ethnic background				
Caucasian	22(68.9%)	---	107(76.9%)	---
Other	10(31.1%)	---	32(23.1%)	---
Study Variables				
Quit attempts	---	11.35(25.31)	---	10.21(22.11)
Trying to quit	---	1.06(.25)	---	1.17(.38)
Living with a smoker***	12(37.5%)	---	14(10.1%)	---
Effort to quit smoking	---	2.52(1.39)	---	3.08(1.52)

Note. *** $p < .001$.

DISCUSSION

Social support has been shown to improve sustained behavioral change in lung cancer survivors (Somayaji et al., 2018). Our findings indicate that some lung cancer survivors may find it difficult to quit smoking due to subjective norms that encourage smoking at home. Indeed, living with someone who smokes regularly may decrease an individual's intention to quit smoking.

Limitations

- Cross-sectional design
- Quitting smoking as a past behavior that occurred prior to this study.
- Small sub-sample of current smokers.

Directions for Future Research

- Longitudinal research is needed to support our findings and identify other risk factors for continuing to smoke after lung cancer diagnosis.



Clinical Implications

Our study outcomes may have clinical implications for smoking cessation programs.

- Incorporating significant others and close relationships may be more effective than focusing individually on patients who continue to smoke.