Tobacco Smoke (Incursions) in MULTI—UNIT HOUSING {among Spanish & English Speaking Hispanics}

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< ABSTRACT >>

Many Hispanics live in multi-unit housing (MUH) without smoking restrictions. Tobacco smoke diffuses between units, potentially affecting non-smoking residents. Hispanics for whom English is not their primary language may be particularly vulnerable to tobacco smoke incursions due to language barriers, cultural differences, and concerns with their immigration status that also limits their communication. The objective of this study is to describe tobacco smoke incursions in MUH for Spanish and English speaking Hispanics. We recruited U.S. residents 18+ years living in MUH from a nationally representative online panel. Analyses are limited to Hispanic residents. Variables included demographics, tobacco use, building policies, and frequency of smelling smoke in their unit. Chi-square and logistic regression models were performed on data weighted to adjust for design effects. Completion rate was 60%, resulting in 3,696 U.S. adults, 607 of whom self-reported being Hispanic (50% were male and 44% were administered the survey in Spanish). Compared to English speakers, more Spanish speakers reported smokefree policies for units (57% vs. 41%, p<.01), believed that smoking should not be allowed in units (87% vs. 61%, p<.01), had a child living in the home (66% vs. 37%, p<.01), and did not have a smoker living in the home (84% vs. 69%, p<.01). There were no differences in household rules against smoking inside the home (70% vs. 63%). Among smokefree households, reported unit incursions were significantly higher for Spanish speakers (37% vs. 25%, p<.01). Despite reporting more incursions, Spanish speakers were much less likely to complain to their landlord about these incursions (13% vs. 44%, p<.01). Most of these differences persisted in multivariate models adjusting for age, sex, and child in the home. Many Hispanic residents of MUH experience tobacco smoke incursions into their private homes. Although Hispanics who primarily speak Spanish are more likely to live in buildings in which smoking is not allowed in units, they are more likely to report tobacco smoke incursions into their units. Access to smoke-free housing should be a right for all.

< INTRODUCTION >>

Secondhand tobacco smoke (SHS) harms both adults and children. Even brief exposures to SHS can result in sustained vascular injury and changes in endothelial function. Furthermore, even very low levels of SHS exposure are associated with cognitive deficits and decreased antioxidant levels in children.

Approximately 25% of US residents live in multiunit housing, where air circulation patterns facilitate the spread of tobacco smoke from unit to unit. A study of real-time SHS transfer in multiunit housing (MUH) between smoke-free and smoke-permitting units demonstrated incursions into both smoke-free units and adjacent hallways. In an analysis of national data, cotinine levels for children living in apartments were 45% higher than for those living in detached homes. These studies suggest a significant role for SHS exposure in MUH.

Many Hispanics live in multi-unit housing (MUH) without smoking restrictions. Tobacco smoke diffuses between units, potentially affecting non-smoking residents. Hispanics for whom English is not their primary language may be particularly vulnerable to SHS incursions in MUH due to language barriers, cultural differences, and concerns with their immigration status that also limits their communication. The objective of this study is to describe tobacco smoke incursions in MUH for a nationally representative group of Spanish and English speaking Hispanic adults.

< METHODS >>

We recruited U.S. resident 18+ years living in MUH from a nationally representative online panel. Analyses are limited to Hispanic residents. Variables included demographics, tobacco use, building policies, and frequency of smelling smoke in their unit. Chi-square tests and logistic regression models were performed on data weighted to adjust for design effects. The statistical significance level was set at p<0.05. SPSS 21 was used to analyze the data.

TABLE 1. SAMPLE CHARACTERISTICS OF ENGLISH & SPANISH SPEAKING HISPANIC STUDY PARTICIPANTS

Characteristic	Unweighted	Unweighted	Weighted
	N=607	Percentage	Percentage
Language English Spanish	343 264	56.5% 43.5%	57.3% 42.7%
Sex Male Female	303 304	49.9% 50.1%	53.5% 46.5%
Region Northeast Midwest West South	144	23.7%	21.8%
	39	6.4%	7.2%
	185	30.5%	32.3%
	239	39.4%	38.8%
Age 18-24 25-44 45-64 65+	127	20.9%	25.8%
	210	34.6%	40.3%
	161	26.5%	20.5%
	109	18.0%	13.4%
Education Less than HS High School Some College College Degree	123	20.3%	30.6%
	172	28.3%	27.7%
	165	27.2%	25.2%
	147	24.2%	16.5%
Smoking Status Nonsmoker Current Smoker	524	87.3%	82.2%
	76	12.7%	16.1%

TABLE 2. POLICIES AND ATTITUDES AMONG ENGLISH & SPANISH SPEAKING HISPANIC STUDY PARTICIPANTS (N=607)

Characteristic	English Speaker	Spanish Speaker	
Smokefree policies for MUH units	40.9%	56.9%	p<.001
Smoking should not be allowed in units	61.4%	87.1%	p<.001
Child living in the home	37.4%	65.6%	p<.001
At least one smoker living in the home	30.7%	16.5%	p<.001
Smoking is not allowed inside of the home	63.1%	70.0%	ns
Reported unit incursions (among adults with house-hold rules against smoking inside the home)	25.4%	37.0%	p=.01
Has complained to property manager about incursions	44.3%	13.2%	p<.001

TABLE 3. MULTIVARIABLE ASSOCIATION BETWEEN MUH SMOKING POLICIES & ATTITUDES OF SPANISH SPEAK-ING HISPANIC RESPONDENTS COMPARED TO ENGLISH SPEAKING HISPANIC RESPONDENTS (N=607)

Characteristic	Odds Ratio	95% C.I.
Smokefree policies for units*	2.6	(1.8-3.7)
Smoking should not be allowed in units*	4.7	(3.0-7.4)
At least one smoker living in the home*	0.3	(0.2-0.5)
Smoking is not allowed inside of the home	1.3	(0.9-1.9)
Reported unit incursions (among adults with house-hold rules against smoking inside the home)	0.9	(0.7-1.3)
Has complained to property manager about incursions	0.4	(0.2-0.8)

< RESULTS >>

Completion rate was 60%, resulting in 3,696 U.S. adults, 607 of whom self-reported being Hispanic (50% were male and 44% were administered the survey in Spanish). Overall, 47.7% of Hispanics lived in MUH with smokefree policies for units. Compared to English speakers, more Spanish speakers reported smokefree policies for units (57% vs. 41%, p<.01), believed that smoking should not be allowed in units (87% vs. 61%, p<.01), had a child living in the home (66% vs. 37%, p<.01), and did not have a smoker living in the home (84% vs. 69%, p<.01). There were no differences in household rules against smoking inside the home (70% vs. 63%). Among smokefree households, reported unit incursions were significantly higher for Spanish speakers (37% vs. 25%, p<.01). Despite reporting more incursions, Spanish speakers were much less likely to complain to their landlord about these incursions (13% vs. 44%, p<.01). Most of these differences persisted in multivariate models adjusting for age, sex, child in the home, and property management rule about smoking inside the unit. However, we did find that differences in incursions were moderated by property rules. There were no differences in incursions for Spanish and English speaking Hispanics who lived in MUH without bans on smoking inside of units, but Spanish-speakers were twice as likely to report incursions (32.5%) than English-speakers (13.2%) if smoking was banned in units (p<.05).

< DISCUSSION >>

Many Hispanic residents of MUH experience tobacco smoke incursions into their private homes. Although Hispanics who primarily speak Spanish are more likely to live in buildings in which smoking is not allowed in units, they are more likely to report tobacco smoke incursions into their units but not make a complaint to the property manager about incursions. Hispanics who only speak Spanish may not fully understand the MUH smoking policies or feel comfortable reporting them due to language limitations and cultural differences. Access to smoke-free housing should be a right for all.

This study has at least two limitations.

First, we cannot eliminate the potential for sample ascertainment bias in the online panel. Second, incursion data are based on self-report of smelling tobacco smoke; rather than biological confirmation of incursions. However, our previous work has confirmed higher cotinine in children living in nonsmoking units of multiunit housing compared with detached homes.

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