

Using the Risk Perception Attitude Framework to Explore Perceived Health Impacts and Thirdhand Smoke Risks among the LGBTQ+ Community

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BACKGROUND

Lesbian, gay, bisexual, and transgender (LGBTQ+) individuals are at higher risk of tobacco usage than their cisgender and heterosexual counterparts.

- LGBTQ+ population is susceptible to minority stress due to prejudice and discrimination.
- The tobacco industry has historically marketed to the LGBTQ+ community, capitalizing on perceived stress-relieving benefits of tobacco products.

Thirdhand Smoke (THS)

- The chemical residue from tobacco smoke left on surfaces.
- Avoiding exposure to THS is a protective behavior which members of the LGBTQ+ community can enact.

Risk Attitude Perception Framework (RPA)

- Used to understand current THS exposure knowledge and THS exposure prevention intentions among the LGBTQ+ community.



PURPOSE & RESEARCH QUESTIONS

The purpose of this study was to explore the LGBTQ+ community's specific perceptions of risk and efficacy regarding THS.

Specifically, this study poses the following questions:

RQ₁: What does the LGBTQ+ community believe happens to the chemicals in tobacco smoke?

RQ₂: Whose health does the LGBTQ+ community believe is most at risk from THS exposure?

RQ₃: How willing is the LGBTQ+ community to make purchases

METHOD

Procedures

- Anonymous survey of 283 participants.
- Recruited through Prolific.
- Eligible participants U.S. residents, 18 years or older, identified as LGBTQ+.

Variables

- Exposure processes: explores what people believe happens to the chemicals in commercial tobacco products (see Table 2).
- Most at risk of the harms of THS exposure: asks participants to consider which groups may be most harmed by exposure to THS (see Table 3).
- Willingness to make THS-related purchases: asks participants to consider how willing or unwilling they would be to make purchases or rentals that smells like stale tobacco smoke (see Table 4).

Data Analysis

- Participants responded to a Qualtrics survey through Prolific.
- Descriptive analyses run in SPSS v29 to describe various perceptions.

DATA ANALYSIS

Table 1.

Survey Demographic Characteristics Among the LGBTQ+ Community

	LGBTQ+
N	283
Age: M(SD)	33.64 (10.52)
Gender: Female	49.8%
Education: AA or less	59.8%
Single family home	54.8%
Own home	32.2%
Employed full time	57.2%

DESCRIPTIVE ANALYSES

Table 2.

Beliefs in What Happens to the Chemicals in Tobacco Smoke among the LGBTQ+ Community—n(%)

	LGBTQ+
<i>There are no chemicals in cigarette smoke.</i>	-
<i>The chemicals disappear quickly.</i>	-
<i>The chemicals remain but eventually disappear.</i>	157(55.5)
<i>The chemicals remain and never disappear.</i>	106(37.5)
<i>Something else happens.</i>	2 (0.7)
<i>I don't know what happens.</i>	18(6.4)

Table 3.

Perceptions of Who is at the Greatest Health Risk following THS Exposure among the LGBTQ+ Community—n(%)

	LGBTQ+		
	Low	Average	High
<i>Low-income adults</i>	16(5.7)	103(36.4)	163(57.6)
<i>High-income adults</i>	154(54.4)*	120(42.4)	8(2.8)
<i>Toddlers</i>	37(13.1)	50(17.7)	195(68.9)
<i>Preschoolers</i>	39(13.8)	63(22.3)	180(63.6)
<i>School-aged children</i>	40(14.1)	96(33.9)	147(51.9)
<i>Teens</i>	51(18.0)	158(55.8)*	74(26.1)
<i>Elderly</i>	6(2.1)	32(11.3)	245(86.6)*
<i>People who live in multiple unit households</i>	30(10.6)	154(54.4)*	99(35.0)
<i>People who live in single family homes</i>	61(21.6)*	203(71.7)*	19(6.7)
<i>People who live in older homes</i>	22(7.8)	123(43.5)	138(48.8)
<i>People who live in newer homes</i>	186(65.7)*	87(30.7)	10(3.5)
<i>Pregnant women</i>	6(2.1)	40(14.1)	237(83.7)*
<i>Individuals with preexisting conditions</i>	6(2.1)	29(10.2)	248(87.6)*
<i>Individuals with disabilities</i>	13(4.6)	79(27.9)	191(67.5)

DESCRIPTIVE ANALYSES, CONT.

Table 4.

Willingness to make THS-related purchases among the LGBTQ+ Community—m(SD)

	LGBTQ+
<i>Would you be willing to...</i>	
<i>...rent a car that smelled of stale tobacco smoke?</i>	1.82(1.10)
<i>...reserve a smoking room in a hotel or vacation Rental?</i>	1.94(1.29)
<i>...stay in a hotel room or vacation rental that smelled of stale tobacco smoke?</i>	1.86(1.21)
<i>...buy a car that smelled of stale tobacco smoke?</i>	1.68(1.08)
<i>...purchase previously worn clothes that smelled of stale tobacco smoke?</i>	1.64(1.07)
<i>...purchase previously owned furniture that smelled of stale tobacco smoke?</i>	1.50(0.91)
<i>...rent a home that smelled of stale tobacco smoke?</i>	1.73(1.05)
<i>...purchase a home that smelled of stale tobacco smoke?</i>	1.76(1.06)

RESULTS

Beliefs in What Happens to the Chemicals in Tobacco Smoke

- Approximately half (55.5%; $n = 157$) of the participants reported that the chemicals in tobacco smoke remain but eventually disappear (see Table 2).

Perceptions of Who is at the Greatest Health Risk Following THS Exposure

- Individuals with preexisting conditions were believed to be at the most risk of THS exposure, with 87.6% of participants deeming this group at high risk ($n = 248$).
- Elderly groups (86.6%; $n = 245$) and pregnant women (83.7%; $n = 237$) fell close behind (see Table 3).

Willingness to Make THS-Related Purchases

- Participants showed low willingness ($M = 1.74$) on a scale (1 = *not at all willing* to 5 = *very willing*) to rent or purchase spaces or items potentially contaminated by THS (See Table 4).

DISCUSSION

- Although the LGBTQ+ community demonstrated some awareness of the long-lasting chemical residue that remains in spaces contaminated by THS, the community group can benefit from increased knowledge of THS-related risks and intentionality toward protecting the health of themselves and other at-risk groups.
- Findings from this study can inform targeted communication campaigns and education strategies tailored to the LGBTQ+ community's specific perceptions of risk and efficacy regarding THS.
- Future intervention and digital campaign efforts can be geared towards increased awareness of chemical exposure, messages including the identified at-risk groups, and the negative effects of prolonged THS exposure through purchased items and spaces, including short-term rental exposures.
- Future preliminary directions are provided for reducing tobacco-related health harms among the historically-targeted LGBTQ+ community group.