Using Social Cognitive Theory to Explore Perceptions of Thirdhand Smoke Remediation Responsibility among Tobacco Industry-targeted Communities

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BACKGROUND

What is Thirdhand Smoke (THS) Residue?

- Mixture of toxic chemicals left behind after someone smokes
- Sticks to surfaces, accumulates in dust, and becomes embedded in furniture and fabrics
- Persists in environments for months to years after smoking stops
- People recognize THS by the stale tobacco odor or discolored stains, yet most do not make the connection between these experiences and the term THS

Risks of THS Exposure

- Underserved communities disproportionately targeted by the tobacco industry are at higher risk of THS exposure

PURPOSE & RESEARCH QUESTIONS

The purpose of this study was to identify who tobacco industry-targeted communities believe is responsible for remediating THS. Specifically, this project examined who do members of priority populations believe to be most responsible for cleaning tobacco smoke from…

RQ1: …spaces that don't allow smoking, but people smoked anyway?
RQ2: …spaces that allow smoking?
RQ3: …items that have a stale tobacco odor?
RQ4: …items with yellow smoke stains?

How responsible do members of priority populations believe the tobacco industry is for cleaning tobacco smoke residue from…

RQ5: …homes?
RQ6: …cars?

METHOD

Online National Survey of U.S. Adults via Prolific ($15/hour incentive)

- Eligibility: U.S. residents, 18 or older, & identify as one of the four target communities or white (control)
- 4 items with 3 response options (the people who smoked; the owner, even if they weren't the person who smoked; the buyer):
  - When a property that did [not] allow smoking, but people smoked there anyway, is for sale, who should be responsible for cleaning the tobacco smoke?
  - When an item that [smells of stale tobacco smoke/has yellow tobacco stains] is for sale, who should be responsible for cleaning the item?
- 2 items on a 5-point Likert-type scale from not at all responsible to fully responsible
  - To what extent is the tobacco industry responsible for paying for the cost of cleaning of tobacco smoke residue from [homes/cars]?

	Overall	Black	Hispanic	AAPI	LGBTQ+	Control
N	1,444	286	293	298	283	291
Age: M(SD)	35.49 (11.58)	38.65 (11.69)	33.91 (10.12)	31.43 (9.19)	33.64 (10.52)	40.0 (13.64)
Gender: Female	50.0%	58.3%	39.2%	46.0%	49.8%	57.1%
Education: AA or less	58.3%	62.9%	63.5%	39.9%	59.8%	66.4%
Single family home	59.6%	51.6%	63.9%	60.1%	54.8%	67.1%
Own home	41.1%	41.7%	42.6%	38.3%	32.2%	50.5%
Employed full time	55.7%	59.7%	53.6%	55.0%	57.2%	52.9%

DATA ANALYSIS

Following the closing of all five surveys, the files were merged into a single file for data analysis. Descriptive analyses were run in SPSS v29 to describe various perceptions. Following, and where required, group comparisons were explored using ANOVA. Analyses were completed in SPSS v29. Figure 1 (below) presents the responses for each item overall and by community.

RESULTS

Although perceived responsibility across specified scenarios varied, perceptions by community groups generally moved as a whole across these scenarios with a few notable variations.

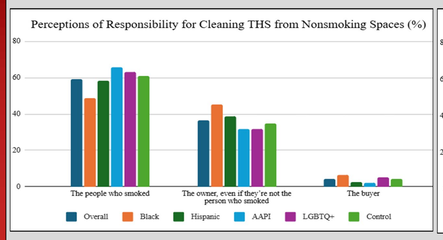
- Over 59% of participants felt the people who smoked should be responsible for cleaning THS from a nonsmoking space (48-65% community range) and over 19% from a smoking space for sale (17-22% community range).
- Over 36% of participants felt the owner should be responsible for cleaning THS from a nonsmoking space, even if they were not the person who smoked (31-45% community range)
- Over 72% from a space that allowed smoking (71-74% community range). Only 42% of participants felt the tobacco industry was responsible for cleaning THS from cars (50-64% community range) and only 44% from homes (47-62% community range).

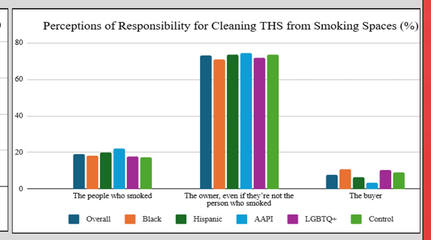
First, although all community groups felt owners were responsibility for remediating THS from spaces that allowed smoking, only members of the Black community felt that was also true for spaces that didn't allow smoking; all other community groups held stronger belief that when spaces didn't allow smoking remediation was the responsibility of the smoker.

Second, across both space scenarios as well as the smell and yellow coloring scenario, members of the APPI community were consistently the least likely to believe remediation was the responsibility of the buyer.

THEMATIC ANALYSIS RESULTS-RESPONSIBILITIES

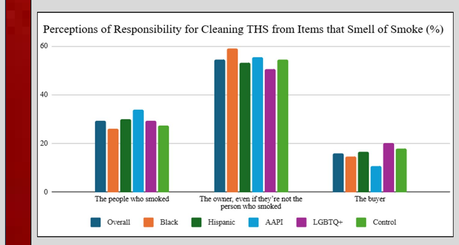
We can see that an overall majority from all groups believed the person who smoked to be most responsible and in all groups for the buyer to hold little to no responsibility.

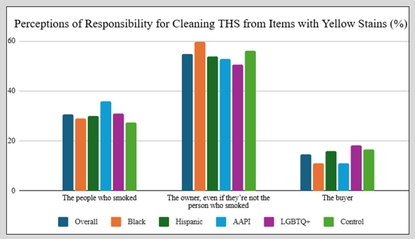




The second research question explored who participants believe is responsible for cleaning tobacco smoke from spaces that allow smoking. We can see an immediate difference in perceived responsibility when smoking is allowed in spaces, with all groups strongly feeling that the responsibility for cleaning belongs to the owner regardless of their personal smoking.

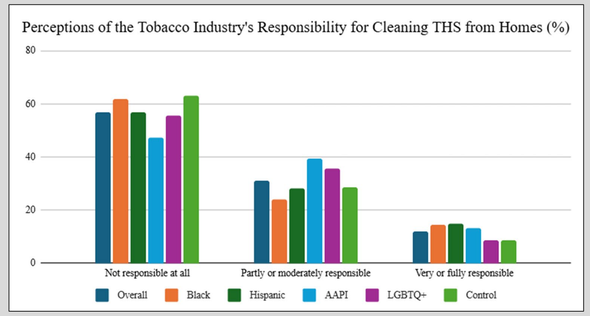
Across these last four graphs emerged a pattern among participants from the AAPI community. Consistently, these participants rarely believed that the buyer was responsible in any of these situations.

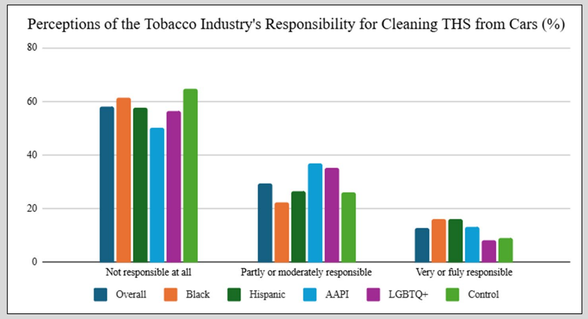




THEMATIC ANALYSIS RESULTS-RESPONSIBILITIES, CONT.

For the last two RQs, we wanted to explore where the tobacco industry falls in the conversation. Although participants had five response options, we collapsed two of the groups, combining partly or moderately responsible as well as combining very or fully responsible.





We see similar results regarding cars, with all communities having majority feelings that the tobacco industry is not at all responsible for tobacco smoke pollution.

Members of the Black community almost equally believed, with only a 3.5% difference between response options, that people who smoke and the owner, regardless of whether they smoked were responsible.

IMPLICATIONS OF FINDINGS

- Most participants do not hold the tobacco industry responsible for thirdhand smoke pollution despite the decades-long history of industry efforts to hide tobacco's negative health effects and hook new generations of addicted users through manipulative advertising.
  - This suggests an opportunity to educate the general public on that long history and to increase awareness of the influence of big tobacco that has not only made generations of people sick, but has also polluted indoor and outdoor environments.
  - This is especially important for contributing to Tobacco Endgame efforts seeking to eliminate the negative influence of tobacco.
- From a public health awareness perspective, similarities across communities provides an opportunity for mass-messaging efforts to target broad populations, which saves time and resources.
  - The efforts should leverage that although most people believe the buyer is not responsible for cleaning tobacco smoke pollution, the authors are not aware of any legislature requiring others to remediate tobacco smoke pollution.
  - Meaning regardless of these feelings, buyers need to beware that the cost and time of removal will currently fall on them.
  - Although sellers might not legally be required to clean tobacco smoke pollution, there are instances of buyers taking sellers to small claims court over the intrusion and generally complaining, both outcomes sellers typically want to avoid and would be motivated to engage in behaviors that allow them to do so.