

Abstract

Important decisions are rarely private events – and desires to maintain privacy or manage impressions may often factor into information decisions. We tested the influence audiences on medical information avoidance in two studies. Study 1 surveyed the beliefs of 332 community and online participants. Past health information avoidance for audience reasons independently predicted lower likelihood of testing for an untreatable medical condition ($b = -0.13, p < .05$), and a serious medical condition ($b = -0.12, p < .05$), and greater intention to avoid future medical information for audience reasons ($b = 1.39, p < .001$). Study 2 experimentally tested whether powerful audiences (audiences with capacity to harm) increase people’s avoidance of health risk information. ResearchMatch.org participants ($N = 394$) completed a health risk questionnaire and learned that choosing to receive their risk results would make the results available either to health insurers, potential employers, the research team, or only the participant. As predicted, participants avoided information more in the powerful audience (health insurer and employer) conditions than in the non-powerful/no audience conditions ($\chi^2(1) = 29.53, p < .001$).

Methods

Study 1

► **Sample:** Participants were 332 Gainesville, FL retirement community members and ResearchMatch.org volunteers 25 and older ($M_{age} = 58, 70.8\%$ female, 86.7% White). A post hoc power analysis for regression using G-power, with a large effect size $f^2 = .35, \alpha = .05$, revealed sufficient power to detect effects, power $> .99$.

► **Procedure:** Participants completed an online survey. We assessed age, gender, education, financial security, experiences with powerful audience harm, and past avoidance of health information for audience reasons or resource (financial, coping, or social support) reasons as predictors of two outcomes: anticipated likelihood of getting tested for minor, serious, treatable, and untreatable health conditions, and audience-related intention to avoid information.

► **Hypotheses:**

- Greater resources (i.e., greater education and financial security) would predict greater likelihood of getting tested, and lower intentions to avoid information.
- People who have prior experience with harm from powerful audiences and have avoided previously would predict lower likelihood of getting tested and greater intentions to avoid information.
- We made no a priori hypotheses about age and gender.

Study 2

► **Sample:** Participants were 394 ResearchMatch.org volunteers age 25 and older ($M_{age} = 49, 77.4\%$ female, 86.3% White). A post hoc power analysis for regression using G-power, with a medium effect size $f^2 = .21, \alpha = .05$, revealed sufficient power to detect effects, power $> .99$.

► **Procedure:** Participants who consented to participate completed a computer-based survey online. Participants completed a health questionnaire that could ostensibly calculate their risk for several medical conditions (heart disease, diabetes, and some forms of cancer). We told participants that if they chose to receive their risk results, the results would be viewable by either:

(1) Insurance Companies, (2) Employers, (3) Our Research Team, or (4) only themselves (No-Audience).

► **Hypothesis:** Participants in the powerful audience conditions (1 & 2) would avoid health risk information more than participants in the non-powerful audience conditions (3 & 4).

Study 1 Results

We ran simultaneous linear regressions predicting people’s anticipated likelihood of getting tested (for minor, serious, treatable, and untreatable medical conditions) and people’s intentions to avoid information for audience-related reasons. Results for treatable/untreatable largely mirror those of minor/serious, and thus are not presented. Prior avoidance of health information due to audience concerns predicted lower intention to get tested for a serious medical condition, and greater intention to avoid future information for audience reasons.

- Older participants reported greater intentions than did younger participants to get tested for a minor medical condition, but lower intentions to get tested for a serious medical condition. Older participants reported lower intentions than younger participants to avoid future health information.
- Prior avoidance of health information due to lacking resources (coping, financial, and social support) predicted less intention to get tested for both minor and serious medical conditions.

► **Likelihood of getting tested: Minor medical condition***

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>r_p</i> [CI _{95%}]
Age	0.00	2.35	.02*	0.17, [0.03, 0.30]
Past audience avoidance	-0.07	-0.94	.35	-0.07, [-0.21, 0.07]
Past resource avoidance	-0.13	-2.34	.02*	-0.17, [-0.30, -0.03]

► **Likelihood of getting tested: Serious medical condition***

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>r_p</i> [CI _{95%}]
Age	0.00	-2.15	.03*	-0.16, [-0.29, -0.02]
Past audience avoidance	-0.12	-2.12	.04*	-0.15, [-0.29, -0.01]
Past resource avoidance	-0.13	-2.92	.00**	-0.21, [-0.34, -0.07]

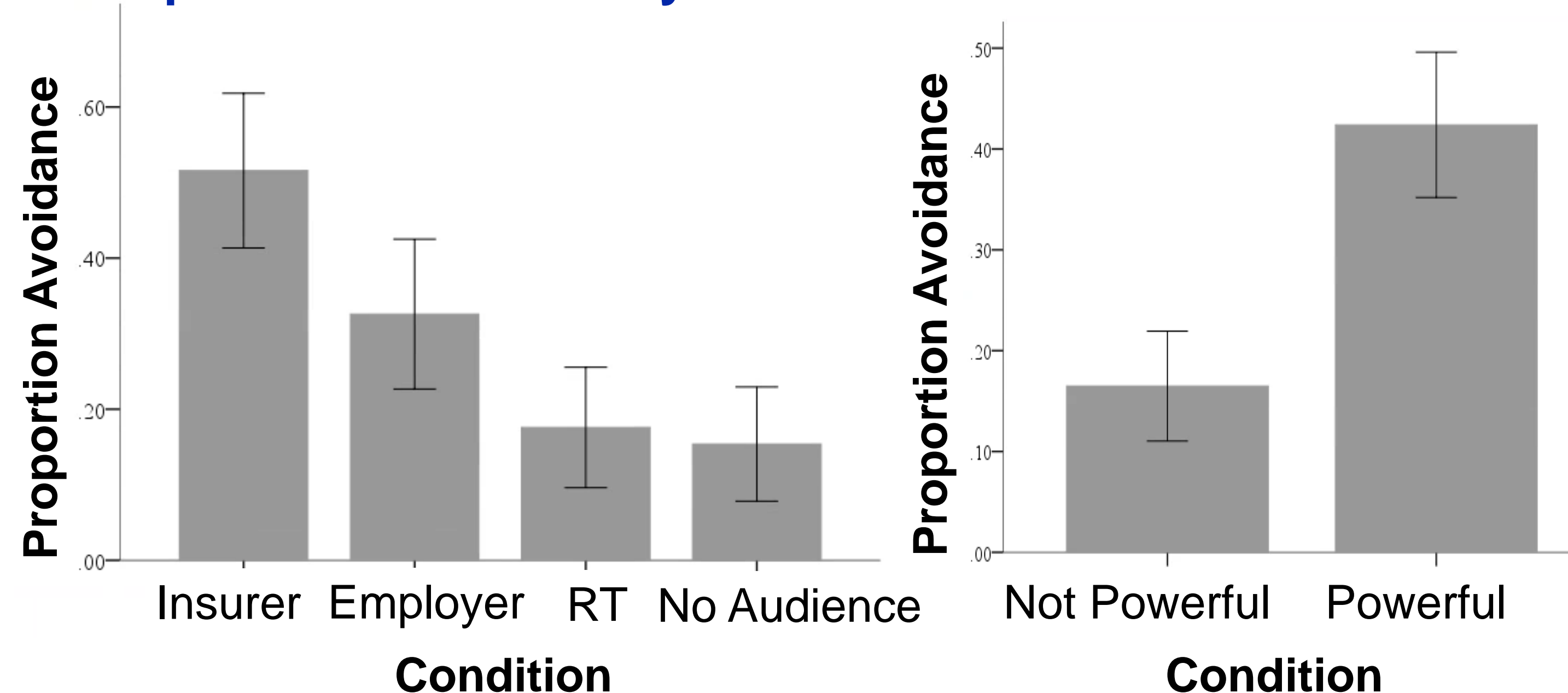
► **Audience-related Avoidance Intention***

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>r_p</i> [CI _{95%}]
Age	-0.01	-2.26	.03*	-0.20, [-0.36, -0.03]
Past audience avoidance	1.39	4.04	.00***	0.34, [0.18, 0.49]
Past resource avoidance	0.42	1.56	.12	0.14, [-0.03, 0.30]

*Results are controlling for gender, education, financial security, and past powerful audience harm, all of which were non-significant predictors and thus are not presented here.

Study 2 Results

► **Proportion Avoidance by Condition**



$\chi^2 = 37.601, p < .001, df = 3$

$\chi^2 = 29.525, p < .001, df = 1$

Study 2 Results cont.

We ran a two-step hierarchical linear regression, with the effects of condition in the first step (Helmert contrast codes) and other predictors in the second step. H1 contrasted the first 3 conditions with No-Audience condition, H2 contrasted the two powerful audience conditions with the low power audience condition, and H3 contrasted insurers with employers.

- The effects of condition remain significant even after including other predictors.
- Controlling for condition, participants who anticipated feeling badly about getting high risk results displayed less avoidance of risk information.
- Controlling for condition, older participants were also less likely to avoid risk information

► **Predictors of Avoidance**

Model	<i>b</i>	χ^2_{Wald}	<i>p</i>	Odds ratio [95% CI]
Helmert				
H1	0.23	6.47	.01*	1.26 [1.06, 1.50]
H2	0.43	11.83	.00**	1.54 [1.20, 1.96]
H3	0.40	4.63	.03*	1.49 [1.04, 2.15]
Insurer harm	0.04	0.23	.63	1.04 [0.88, 1.24]
Employer harm	0.12	1.44	.23	1.13 [0.93, 1.36]
Research team harm	-0.02	0.06	.81	0.98 [0.80, 1.19]
Financial resources	-0.03	0.16	.70	0.97 [0.84, 1.12]
Coping	-0.10	0.74	.39	0.91 [0.73, 1.13]
Feeling bad	-0.30	9.49	.00**	0.74 [0.61, 0.90]
Social support	0.13	1.09	.30	1.14 [0.90, 1.45]
Friends/family disclosure	0.24	3.79	.05	1.28 [1.00, 1.63]
Age	-0.03	11.10	.00**	0.97 [0.95, 0.99]
Gender	-0.08	0.05	.82	0.92 [0.47, 1.82]

Discussion

Participants displayed greater avoidance of health information when the results would be known to a powerful audience than to a non-powerful audience or no audience.

Participants who reported avoiding information in the past because of concerns about how audiences would respond reported that they would do so in the future when the medical condition was serious or untreatable.

Limitations:

In both studies, samples were predominately White, predominantly female, and generally older, and thus may not be representative of the entire population. Additionally, Study 2’s manipulation of powerful vs non-powerful audience may also tap large vs small audiences.

Implications:

Avoiding health information can be detrimental, especially when knowing the information enables people to take life-saving action. If powerful audiences influence people to avoid information, it may be beneficial to test interventions that reduce the influence or perceived threat of powerful audiences.