Natural Cause Jail Deaths: A Survey of Public Perceptions

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Abstract

The number of people dying in U.S. jails has increased over the past 13 years. The majority of these deaths are deemed to be "natural cause." The research question posed is: What is public perception of U.S. natural cause jail deaths, and does local media framing influence that perception? Given frequent local media framing in reports on natural cause jail deaths, I expect the public to misperceive these deaths as unpreventable – due to old age and untreatable illness (Hypothesis 1). Further, I expect when natural cause deaths are reported without additional context beyond local authority press releases, the public will be less likely to suspect the jail of wrongdoing (Hypothesis 2). A survey was conducted on 336 Americans, who were asked an open-ended question about the meaning of natural cause deaths and then were presented with an experiment to test media framing impact. Qualitative coding, Structural Topic Modeling, and OLS Regression models are used to test the hypotheses. Results confirm the public largely misperceives old age as most associated with natural cause deaths in jails. Further, adding additional critical reporting about a natural cause death increases respondents' likelihood of suspecting the jail of wrongdoing. Though perhaps obvious, this reflects the impact of the status quo, where most Americans do not understand the terminology frequently used by officials, which is often repeated without explanation or additional reporting by local media. Given the findings in this report, a larger survey is proposed with refined questions and connection to competitive messaging theory.

Keywords: Criminal justice, jail, deaths-in-custody, public opinion.

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Introduction

On July 23, 2023, in the rural East Texas county of Rusk, Johnny Bradley was pronounced dead after being found unresponsive in his jail cell. The Texas Commission on Jail Standards soon after found the jail to be out of compliance due to leaving Bradley in his cell without any face-to-face checks, which are required by state minimum standards (See Appendix A for noncompliant report). The full article from KYTX presented only the sheriff's press release information without any additional context or interviews (See Figure 1). This article states only that Johnny died of "natural causes."

Since 2010, the Bureau of Justice Statistics has reported an increase in people dying in local jails (See Figure 2 in Appendix B). The majority of jail deaths, both in Texas and nationally, are from natural causes (Bureau of Justice Statistics, 2023; Texas Justice Initiative, 2023). Natural cause simply means not a homicide or suicide. Research on natural deaths in jails is limited, but jail time increases avoidable, premature death (Kajeepeta, et al., 2021), unsupported detox is a leading cause of these deaths[1] (Victor, et al., 2022), and the median age of natural cause death in Texas jails is 48.[2] Given this research and the consistent increase in jail deaths over the past 13 years, there is value in understanding how the public perceives natural deaths in custody and how local media framing can impact these perceptions.

The research question posed is: What is public perception of U.S. jail deaths, and does local media framing influence that perception? I expect natural cause deaths will be perceived as unavoidable – occurring due to old age and untreatable illness. Further, I expect when natural

[1] Death by unsupported detox occurs when someone detoxes from drugs or alcohol without medical supervision and intervention.

[2] Calculated by downloading all deaths in Texas jail custody from the Texas Attorney General's Death in Custody data, provided with more accessibility by the Texas Justice Initiative. Mean = 47, Median = 48, Mode = 53.

cause deaths are reported without additional context beyond local authority press releases, the public will be less likely to suspect the jail of wrongdoing. A survey was conducted on 336 Americans, who were asked an open-ended question about the meaning of natural cause deaths and then were presented with an experiment on media framing. Descriptive statistics, text-as-data analysis, and OLS regression models are used to test the hypotheses. Results show the public largely misperceives old age as most associated with natural cause deaths in jails. Further, adding additional critical reporting about a natural cause death increases respondents' likelihood of suspecting the jail of wrongdoing. Though perhaps obvious, this reflects the impact of the status quo, where most Americans do not understand the terminology frequently used by officials and repeated without critique or explanation by local media. Given the findings in this report, a larger survey is proposed with refined questions and connection to competitive messaging theory.

Figure 1. Local News Coverage of Natural Cause Death

KYTX-TV Tyler-Longview + Follow

Texas Rangers confirms Rusk County Jail inmate died from natural causes

Story by Reagan Roy • 4mo

The Texas Rangers have concluded their investigation regarding the death of an inmate in an East Texas jail on Friday.

Johnny Bradley's autopsy report indicates that his death was from natural causes.

According to the **Rusk County Sheriff's Office**, on Sunday, July 23, Rusk County jail staff noticed Johnny Bradley, 61, was unresponsive on his bed. Staffers immediately began CPR and Bradley was taken to a local hospital where he was pronounced dead.

"We pray for strength and healing for his family during this time of loss," Sheriff Johnwayne Valdez said.

Background

Deaths in U.S. jails are routinely two and three times above the national average of the general population (BJS, 2021). In Texas alone, 136 people died in county jails in 2023 (Texas Justice Initiative, 2023). The majority of those dying in jails are pretrial, meaning they are not convicted of a crime and are waiting in jail for their trial. Those held pretrial are

disproportionately people of color and living below the poverty level (Arnold, Dobbie, & Hull, 2022; Donnelly & MacDonald, 2018). Most deaths in jails are natural cause (BJS, 2021). These deaths are beginning to attract more public attention in the form of lawsuits and national media coverage (e.g. Eisler, et al., 2020; Grench, 2023; Ransom & Bromwich, 2023). However, local media reports most frequently quote public officials who frame "natural cause" with no additional context and to seemingly dismiss any wrongdoing.[3] For example:

- "The death was not an apparent suicide. The man appeared to die of natural causes," said Tom Newton, a spokesperson for the Onondaga County Sheriff's Office. (Hayes, 2023).
- "An inmate found dead in his jail cell Tuesday is believed to have died of natural causes, according to the Ascension Parish Sheriff's Office. […] No foul play is suspected at this time." (WBRZ, 2020).
- "The McLennan County Jail inmate who died in custody on May 25 died from natural causes, according to a final autopsy report." (Witherspoon, 2023).

Therefore, the research question posed is: What is public perception of U.S. jail deaths, and does local media framing influence that perception? There is limited research conducted on jails in general. Few sources of data exist for county jails given that each state has different standards, and individual counties and sheriff's offices are tasked with running the jails. To my knowledge, there is no research that studies public understanding of jail deaths generally, and particularly not concerning natural cause deaths. Additionally, framing effects on perceptions of jail deaths have not been researched. My hypotheses are informed by the frequent lack of

[3] Based on in-progress work where I analyze local media articles through text analysis.

explanation and context in local media coverage, which is often the only coverage about a death, given the local nature of the event.

- ***H1:*** Americans will be most likely to perceive natural cause deaths as due to old age.
- ***H2:*** When natural cause deaths are reported without additional reporting, the public will be less likely to suspect the jail of wrongdoing.

Literature Review

Jail incarceration has tripled over the past 30 years, with rural counties predominantly driving this growth (Copp & Bales, 2018). Despite this, there is limited research on jails, with most of the literature focusing on prisons.[4] Much of the research that does center on jails, seeks to understand mental health and suicide. For context, 64% of people in jail have a mental health issue (Copp & Bales, 2018), and more people with severe mental health issues are in jails and prisons than in hospitals (Torrey, et al., 2010). Suicide rates are seven times higher in jails than in prisons (BJS, 2021), and six times higher in the smallest jails than largest jails (Meagher & Chammah, 2015). Research on natural deaths in jails is mostly conducted by medical and forensic researchers, seeking to understand causes and population trends. Further, only two studies incorporate public opinion in relation to U.S. jails (Appelgate, Daou & Oullette, 2023; O'hear & Wheelock, 2023).

[4] In the United States, jails are run by counties and local governments to house people pretrial, after an arrest subsequent to release if charges are dropped, some short county-level sentences (less than a year), and at times as holds for other agencies, such as U.S. Marshalls or Immigration and Customs Enforcement. The vast majority of people are held pretrial (between 75% to 80% on average). Prisons are run by state or federal governments and house people post-conviction. They tend to have more systematized procedures, documentation, and screening and therefore there tends to be more data on them compared to local jails.

Natural Cause Deaths

Earlier work by Wooldredge and Winfree (1992) found that natural cause deaths were reduced where jails implemented minimum humane standards, had lower levels of crowding, and where onsite infirmaries existed. A 2006 study on Cook County Jail deaths occurring from 1995 to 2004 found mortality rates for heart disease, infectious disease, and suicide to be higher than the general population. Deaths due to illness or homicides predominantly occurred to Black detainees, while higher proportions of suicide occurred among white and Hispanic detainees (Kim, et al., 2006). Powell and Zevitz (2011) examined four decades of mortality data on Milwaukee County jail. They found natural cause deaths surpassed suicides as the leading cause, and 25% of deaths were among people under 30 years of age with the mean age for natural death being 41.4. A study on the urban county, Bexar, retrospectively reviewed all deaths in custody from 1985 to 2010 (Lozano & Molina, 2015). The leading cause of natural cause deaths were heart-related, and they recommended that all deaths in jails be reported to the medical examiner for a thorough investigation to determine and document cause and manner of death.[5]

More recent research has observed that avoidable premature deaths are associated with county jail incarceration (Kajeepta et al., 2021), and high staff turnover is associated with higher death rates (Adler & Chen, 2023). Further, unsupported detox was observed as the leading cause of death in U.S. jails (Victor, et al., 2022). Most recently, Shapiro and Keel (2023) examined autopsy reports between 2009 and 2018 in Los Angeles County jails. They concluded that the Medical Examiner regularly determined deaths to be natural or undetermined in a way that minimized the culpability of jail staff. Further, 75% of deaths occurred to people who were

[5] This is still not a standardized requirement.

waiting for their trial and a disproportionate number of Black detainees were classified as natural.

Public Opinion

Few studies survey public opinion in relation to jails. Among criminal justice perspectives generally, punitiveness has been examined over time. For example, level of punitiveness is reduced among people who hold a belief that those who commit crimes are redeemable and capable of change (Burton et al., 2020; Maruna & King, 2009). Further, punitiveness tends to be associated with personal characteristics and not concerns about crime or experience with crime (O'hear & Wheelock, 2023).

Only two studies to my knowledge poll Americans about jails. A Kentucky study explored perceptions of punitiveness based on type of incarceration, with adults believing jail to be more punitive than prison (May, et al., 2014). The other study surveyed jail administrators to determine their priorities and approach to incarceration (Applegate, Daou & Ouellette, 2023). Jail leaders largely stated a priority to improve medical and mental health care, while also citing this as a top challenge.

Data and Methodology

Three hundred and thirty-six U.S. adults were polled using the service CloudResearch. Probability samples have long been established as the ideal in survey research (Cornesse, et al., 2020; Groves, et al., 2011; Wolf, Smith & Smith, 2016). However, nonprobability online samples have become increasingly common in social science research, particularly where representative samples cannot be obtained (AAPOR, 2022). With proper modeling and adjustments, meaningful inferences have been made (AAPOR, 2022; Ansolabehere & Rivers, 2013; Callegaro et al., 2014). According to Douglas, Ewer, and Bauer (2023), respondents on CloudResearch

were more likely to provide meaningful answers, pass attention checks, follow instructions, and take enough time to read through all the items presented, when compared to MTurk and an undergraduate student sample.

The poll was conducted between November 15 to November 16, 2023. Opt-in respondents that fit the selection criteria of being over the age of 18 and residing in the United States, participated based on demographic quotas. Qualifying respondents were identified through the CloudResearch platform and took the survey hosted in Qualtrics. See Appendix C for full survey methodology disclosure. Standard demographic questions were posed along with an attention check that followed best practices of not putting off or priming respondents (Hillygus & LaChappele, 2022). See Appendix D for all relevant survey questions.

Survey Design and Analysis for H1

Two dependent variables are tested: perception of natural cause death and perception of jail wrongdoing. The first is measured and considered with two different approaches, first asking an open-ended question about meaning of natural cause death, and then post-experiment, asking a closed-ended question to click all types of natural cause deaths (where all are correct). Jail wrongdoing is operationalized through a closed-ended question that asks degree to which the respondent suspects the jail of wrongdoing.

To test the general perceptions of natural cause deaths in jails in an exploratory manner, an open-ended question was first asked of respondents. It read, “When you hear that someone died in jail of natural causes, what does that mean to you? In the box below, please write your response.” (See Appendix D for a full display of all survey questions). This was asked before any experiment or other jail-related questions were discussed to avoid priming. Open-ended questions have been debated concerning their ability to produce meaningful answers (Ladonna et

al., 2018). However, there was not a way to gauge perceptions of this concept without introducing information with the responses. Given CloudResearch respondents' higher likelihood of providing meaningful answers and the ability to use text-as-data methods to understand data quality and key topics, I deemed it worth the risk. Further, open-ended survey questions are useful when wanting people's spontaneous responses (Reja, et al., 2003), and a group of public opinion research finds that people know more than closed-ended questions capture (e.g., Clawson & Oxley, 2021; Gamson, 1992). This approach enables respondents to articulate knowledge beyond clicking one correct answer so that my design does not arbitrarily dismiss more complex levels of knowledge.

Later in the survey, after the experiment (discussed below), I also ask a "click all that apply" question to see which types of causes of death would be considered "natural cause" to the respondents. However, this interacts with the experiment, so works to explore the first hypothesis but is not separate in the way the open-ended question is. This first question gets at baseline perceptions. Next, the second measure of perception of natural cause death is used as a dependent variable (See Appendix D10). All the causes presented are considered natural cause deaths. I expect most people to not know this, and I further do not expect the treatment of context to be enough to inform understanding of natural cause deaths. However, this variable helps to expand on the open-ended question in a quantitative approach.

The results for the open-ended question were first hand-coded by mention of key topics. (See Appendix E for a full list of responses along with my coding matrix for each one). Next, I use a machine learning approach through the application of a Structural Topic Model (STM) to understand the main associated themes across the responses to determine if they are capturing similar topics compared to my qualitative approach. STMs are an unsupervised classification

system that can uncover latent topics across a corpus of responses (Lebryk, 2021), and have been successfully used by social scientists to evaluate open-ended survey questions (Roberts et al., 2014). To analyze, I begin by preprocessing the data for standard evaluation. This includes making all text lowercase, removing stopwords (more frequent filler words like "the" and "and"), removing punctuation, and stemming words. Stemming transforms words into their root form which can assist in not missing similar words (i.e. age, aging) or over-counting the same concepts (Denny & Spirling, 2018). Utilizing the stm package in R, I run an STM across the responses to identify the top 10 latent topics.

Survey Design and Analysis for H2

I tested the second hypothesis with an embedded experiment. After answering the open-ended question, respondents were randomly assigned to the control or treatment stimulus. The control treatment presented three pieces of information about a natural cause jail death. See Appendix D7. This is a common local news presentation, which offers little to no additional context, as exemplified in Figure 1. The treatment group received the same stimulus with one additional piece of information (See Appendix D8). It reads, "NPR claims the jail refused to provide heart medication." This is based on a jail death and NPR article that did report on the lack of heart medication (Kim, 2023). Further, not receiving heart medication is a frequent element of lawsuits or inquiries into natural cause deaths associated with heart failure (e.g. McDonald, 2023) along with not receiving other types of life-saving medications (e.g. Brooks, 2016; Bonvillian, 2020; Calabrese, 2016; Rios, 2023). After receiving the stimulus, all respondents answered the question, "How much, if at all, do you suspect the jail of wrongdoing?" (See Appendix D9 for question and response options).

Three final questions serve as controls and ways to capture what may inform perceptions of jail wrongdoing concerning deaths (See Appendix D11 to D13). They ask if jail deaths have increased, decreased, or stayed the same over the past 5 years. Jail deaths have objectively increased but regardless of whether respondents know this to be factual, believing this may inform more critical views of jail deaths (See Appendix D11 for full question and response options). The next question asks how much of a problem the respondent thinks people dying in jail is (See Appendix D12). Perhaps beyond any context offered, beliefs about the severity of the problem may be important in informing both perceptions of jail deaths and jail wrongdoing. Finally, frequency of news consumption is asked about to understand how exposure to media may influence perceptions (See Appendix D13).

Descriptive statistics and OLS regressions are used to test the treatment effect. The first set of models measure the impact on perception of jail wrongdoing. Model 1 is the base model of the treatment effect on perception of jail wrongdoing. Model 2 includes demographic controls including race (coded as White or other), gender (coded as female or other), and liberalism (coded as increasing from conservative to liberal). The third model incorporates the controls about news consumption (News), perception of whether jail deaths are increasing (Increasing), and how much of a problem jail deaths are perceived to be (Problem). Finally, Model 4 incorporates the full host of controls and covariates. The second set of models follows the same model specifications on the dependent variable of natural cause death count. Finally, I check the consistency of the results once they are weighted to population demographics according to the U.S. American Community Survey.

Results

The quality of responses to the open-ended questions exceeded expectations. Three hundred and thirty-three people responded, leaving only three nonresponses. It appeared most respondents provided good-faith answers that engaged with the question appropriately. There were a few who put a "." or said, "I do not care." Other unhelpful responses engaged with their emotions about people dying in jail more generally – either expressing sadness or expressing lack of compassion under the assumption the person committed a serious crime. But did not answer the question about understanding of natural cause death. The combination of these three categories produced 36 unusable responses (See Figure 2). See Appendix E for a full list of all responses and my hand coding.

As hypothesized, the most frequent response discussed dying of old age, with 117 respondents answering this way. For example, one respondent said, "*They died due to old age or due to factors that cause death in any human being."* Another respondent said, "*it means someone old died of being old and they just so happened to die while physically being located in a jail."* These responses were most frequently contextualized with expectations of the death as unavoidable as exemplified in the sampled responses.

After discussing old age as an expectation for natural cause deaths, the next top responses were tied between being generally suspect of the jail and mentioning general illness and disease, at 57 each. Those who were suspect, generally questioned if the deaths were natural and some suggested cover ups or other negligence. Examples include:

- *"I wonder sometimes if in fact the cause was natural or if there's another cause that is being obscured."*
- *"it means that they died, but i wouldnt be so sure it was natural"*

Figure 2. Top Topics Across Open-Ended Natural Death Question

Top Topics	No. of Respondents
Old Age	112
Suspect of Jail	57
Illness/Disease	57
Not from violence or foul play	53
Health Issues	46
Heart Attack	40
Other / Unclear	36
Concerned about healthcare access	24
Unpreventable	23
Cancer	18
Presumed long post-conviction prison sentence	18
Stroke	12
During sleep	7
Not from illness or health issue	6
Do not know	6

Many of these responses also raised concern for adequate access to medical care (24 respondents). For example:

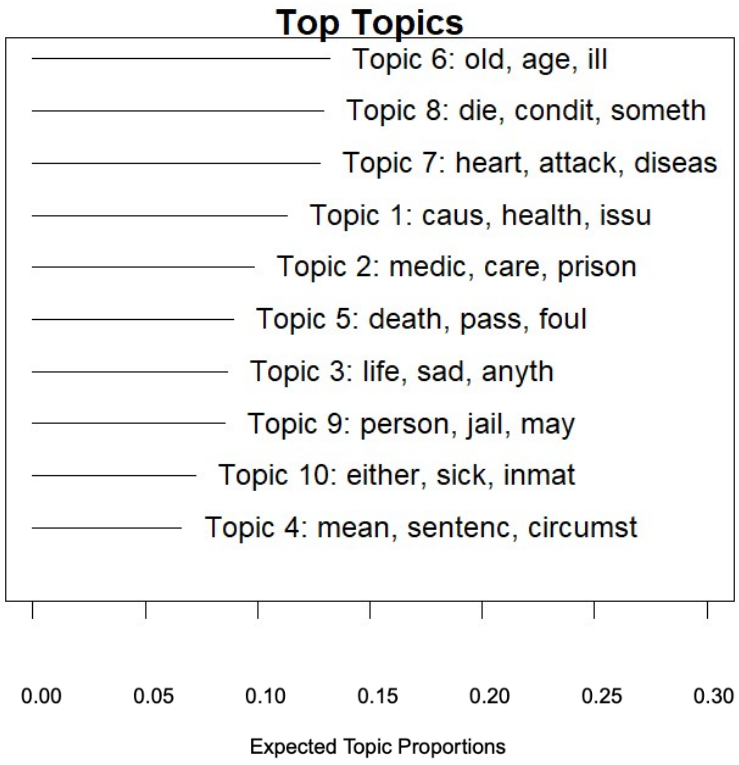
- *"It raises questions about the adequacy of healthcare and oversight within the correctional system."*
- *"It means they probably didn't get medical attention in time. Or their death is being covered up."*

Illness and disease categories, generally identified natural deaths as being caused by death and illness. Again here, they were often associated with assumptions as unavoidable. Fifty-three respondents specifically said they expected these deaths to mean that there was no violence of foul play involved. Forty-six people discussed health issues, and 40 specifically noted heart

attack. Heart attack was the top response in terms of a specific identification of a cause of death that is health related.

The results from the Structural Topic Model reflect similar realities between the machine learning assessment compared to the hand coded approach. Figure 3 displays the top 10 topics by their proportion of representation within the responses. Among the 10 topics, they are listed in order of largest proportion of representation across the responses. The most frequent topic reflects dying of illness and old age. The second is about dying of some kind of condition, with the third being heart attack or heart disease.

Figure 3. Structural Topic Model, Latent Top Topics



Descriptive statistics of the embedded experiment results suggest a treatment effect before additional analysis. Table 1 and the complimentary Figure 4 show that greater levels of jail wrongdoing assumption are associated with the treatment group and lower levels are

associated with the control group. The highest proportion of responses for the control group are "Not at all" and "A little" while the lowest are "A lot" and "A great deal." For the treatment group, the inverse is true, with the highest proportion of responses being "A lot" and "A great deal" and the lowest being "Not at all" and "A little."

Table 1. Perception of Jail Wrongdoing by Treatment vs. Control

	Not at all	A little	Moderate	A lot	A great deal	Missing values
Control	30%	37%	21%	8%	2%	1%
	(46)	(56)	(32)	(12)	(3)	(2)
Treatment	5%	11%	22%	34%	24%	5%
	(9)	(21)	(42)	(66)	(46)	(9)

Figure 4. Perception of Jail Wrongdoing by Treatment vs. Control

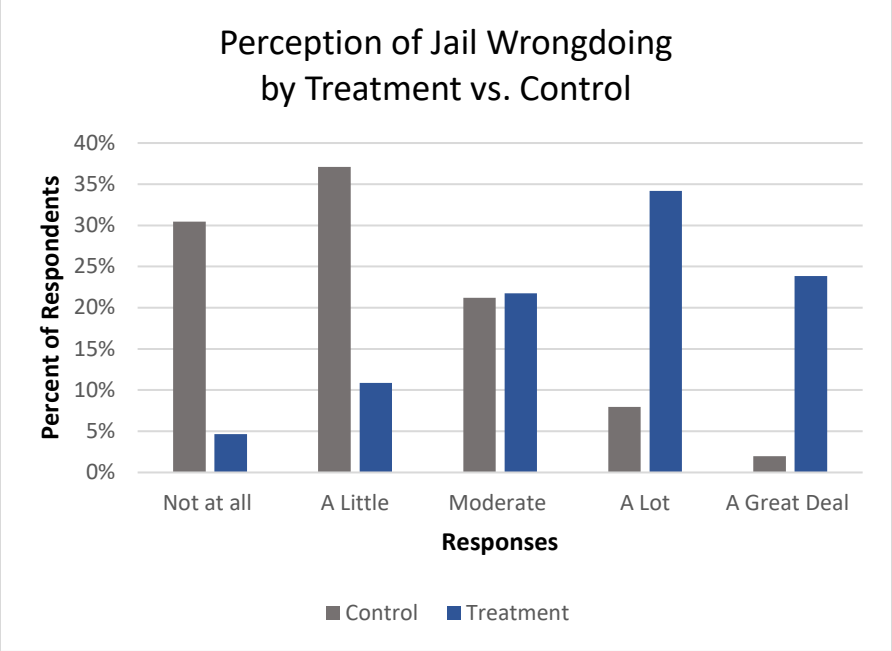


Table 2 displays the results of the four regression models for jail wrongdoing perception. Across all model specifications, there is a statistically significant treatment effect ($p<0.01$). Respondents who received the additional line of critical context answered with higher levels of

jail wrongdoing assumption. Given that there are 5 response categories, coded as an ordinal increasing variable, a constant of 2.1 is large. Among demographic controls (Model 2 and 4), Liberalism ($p<0.01$) is significant and positive, while White is negative ($p<0.05$). News consumption is never significant (Model 3 and 4). However, increasing levels of belief that jail deaths are a problem are significant and positive, as expected, but do not impact the significance of the treatment effect. Incorporating demographics in model 3, we continue to observe no significant effects across race, gender, and ideology. Unexpectedly, as people move from believing jail deaths are decreasing to believing they are increasing, belief in jail wrongdoing decreases significantly. Yet across all models, the treatment effect remains positive and significant ($p<0.01$). The results are robust when weighting to match the demographic population of the United States (See Appendix F for Table 3: Survey-weighted Generalized Linear Model).

The additional measure of perception of natural cause deaths confirms the finding of the open-ended question – respondents misperceive the meaning of natural cause deaths. Again, this is operationalized by number of options selected, with all being correct but with varying degrees of potential intuitiveness. All five death types presented are correct, but most of the respondents only selected two options (See Appendix G for Figure 5). Table 4 (in Appendix H) displays the results of these counts based on treatment effect, given that this question is asked after application of the initial treatment. There is no treatment effect in any model specification.

Discussion

Respondents most frequently perceive natural cause jail deaths to be attributed to old age (See Figure 2). This conflicts with findings that natural cause deaths in jail are quite young (average of 47 in Texas and 41 in Milwaukee County). This provides some preliminary evidence for Hypothesis 1, which expected perceptions of natural deaths to be associated with old age.

Table 2. OLS Regression Results of Treatment Effects on Perception of Jail Wrongdoing

	Dependent variable:			
	Perception of Jail Wrongdoing			
	(1)	(2)	(3)	(4)
Treatment	1.500***	1.481***	1.490***	1.484***
	(0.119)	(0.117)	(0.112)	(0.112)
Liberalism		0.126***		0.075**
		(0.034)		(0.034)
White		-0.267**		-0.244**
		(0.119)		(0.119)
Female		0.068		-0.022
		(0.109)		(0.107)
News			0.014	-0.006
			(0.058)	(0.060)
Increasing			-0.120**	-0.106*
			(0.061)	(0.061)
Problem			0.384***	0.351***
			(0.070)	(0.072)
Constant	2.147***	2.131***	1.605***	1.793***
	(0.088)	(0.194)	(0.558)	(0.566)
Observations	334	331	334	331
R^2	0.324	0.367	0.404	0.426
Adjusted R^2	0.321	0.360	0.396	0.414
Residual Std. Error	1.082 (df = 332)	1.055 (df = 326)	1.021 (df = 329)	1.009 (df = 323)
F Statistic	158.776*** (df = 1; 332)	47.322*** (df = 4; 326)	55.663*** (df = 4; 329)	34.296*** (df = 7; 323)
Note:				*p<0.1; **p<0.05; ***p<0.01

Yet a not insignificant portion of the respondents were automatically critical of the jail without any additional prompting, treatment, or questions. This suggests variation in perceptions of jail deaths with the top categories representing extremes around presumptions of deaths as suspect and deaths as unavoidable. The Structural Topic Model largely affirmed findings from the hand-coding approach identifying the discussions about old age, illness, and heart issues as top topics. However, the STM failed to capture being suspect of the jail. This could be due to me being overly broad in my coding of this category or could be a limitation of STMs since they cannot capture tone and more subtle human meanings, only latent topics. Further, Table 4 (Appendix H) shows no treatment effects on understanding of natural cause death coding. There is logic in this non-finding. Adding a line of critical context about potential wrongdoing of a jail does not increase understanding of natural cause death meaning. It is understandable that this does not correct possible misperceptions and suggests increase in contextual news coverage alone will not

help people understand what natural cause deaths mean, even if a group of respondents are inherently suspect of jails regardless of the treatment.

For perception of jail wrongdoing there are treatment effects across all models. Adding a line of critical context to a report on a natural death in jail, increases respondents' perception of jail wrongdoing. Though this seems obvious and intuitive, it reflects the potential impact of the status quo of much of the local news coverage that releases short articles based on sheriff press releases without additional interviews or context. With the increase of national and state news coverage of jail deaths and conditions, paired with an increase in lawsuits which often warrant both local news coverage as well, public perception could continue to shift to being more critical of jails. This may have policy implications, if more people grow concerned and this concern leads to calls for policy interventions to make jails safer.

Limitations and Next Steps

This survey is not a randomly selected, nationally representative sample, which, of course, impacts generalizability. Though there is no standard agreed to on necessary sample size, particularly when utilizing an experiment, an increased sample would certainly improve the validity of findings. Further, having an additional researcher recode the open-ended responses would improve internal validity and introduce inter-coder reliability.

Though the findings presented here are interesting, I believe they would be improved upon if the next iteration of this project more directly connected the experiment to the open-ended question about understanding of natural cause deaths. I intend to do this by presenting a recently released national article by NPR that calls attention to natural deaths in custody, and seeing how this media framing influences perceptions of natural deaths as unpreventable. This approach would more directly expand on the natural cause perception finding instead of

separately considering jail wrongdoing. The frequency of news consumption as a control could be replaced by the type of media consumption. I expect local media coverage impacts lack of concern and understanding around jail deaths. I could test this more formally by asking about type of consumption, rather than simply assuming based on frequency of local media framing. Both of these adjustments could better situate the research project in Druckman's competing media frames theory (Chong & Druckman, 2007; Druckman et al., 2010; Druckman & Lupia, 2016).

Conclusion

Jail deaths have increased in the United States over the past 13 years. The majority of these deaths are deemed to be of natural cause. I assumed the public would misperceive the meaning of natural cause jail deaths and tested this in an exploratory manner through an open-ended survey question. Respondents most frequently associated natural cause deaths in jail with old age, which is outside of the reality, yet a portion of respondents were inherently critical of jails even without any context. Local media coverage of natural cause jail deaths is often lacking in context, additional sources, or critique. I test if adding context impacts understanding of jail deaths, and it does across model specifications. This small addition of context does not increase understanding of natural cause deaths, just level of perception of jail wrongdoing.

References

AAPOR. (2022). Data quality metrics for online samples: Considerations for study design and analysis. https://aapor.org/wp-content/uploads/2023/02/Task-Force-Report-FINAL.pdf

Adler, J. L., & Chen, W. (2023). Jail Conditions And Mortality: Death Rates Associated With Turnover, Jail Size, And Population Characteristics. *Health Affairs*, *42*(6), 849–857. https://doi.org/10.1377/hlthaff.2022.01229

Applegate, B. K., Daou, J., & Ouellette, H. M. (2024). The Future of American Jails: A National Survey of Jail Leaders' Ideals. *The Prison Journal*, *104*(1), 3–23. https://doi.org/10.1177/00328855231212421

Bonvillian, C. (2020, September 21). Lawsuit: Jail denied Texas woman with HIV life-saving drugs, medical care for months before death. https://www.kiro7.com/news/trending/lawsuit-jail-denied-texas-woman-with-hiv-life-saving-drugs-medical-care-months-before-death/BGLUNLGRFZCTNL3O44BVSW6NZA/

BJS. (2021). Mortality in Local Jails, 2000-2019. *Office of Justice Programs.* https://bjs.ojp.gov/content/pub/pdf/mlj0019st.pdf#:~:text=In%202019%2C%20a%20total%20of%20636%20jail%20jurisdictions,mortality%20rate%20of%20local%20jail%20inmates%20by%20state

Brooks, K. (2016, March 14). Lasuit filed in death of Texas jail inmate refused medication. *Reuters*. https://www.reuters.com/article/texas-prison/lawsuit-filed-in-death-of-texas-jail-inmate-refused-medication-idUSL2N16M1HB/

Burton, A. L., Cullen, F. T., Burton, V. S., Graham, A., Butler, L. C., & Thielo, A. J. (2020). Belief in Redeemability and Punitive Public Opinion: "Once a Criminal, Always a

Criminal" Revisited. *Criminal Justice and Behavior*, *47*(6), 712–732. https://doi.org/10.1177/0093854820913585

Calabrese, E. (2016, July 16). Family of Ohio Woman Found Dead in Jail Sues City, Police. *NBC News*. https://www.nbcnews.com/news/us-news/family-ohio-woman-found-dead-jail-sues-city-police-n610956

Callegaro, M., Baker, R., Bethlehem, J., Goritz, A.S., Krosnick, J.A., Lavrakas, P.J. (2014). Online panel research: History, concepts, application and a look at the future. *Wiley.* https://research.google/pubs/online-panel-research-history-concepts-applications-and-a-look-at-the-future/

Clawson, R.A. & Oxley, Z.M. (2021). *Public Opinion: Democratic Ideals, Democratic Practice*. Chapter 8: Knowledge, Interest, and Attention to Politics. Fourth Ed. Sage, CQ Press.

Cooper, M., Updegrove, A. H., Gabbidon, S. L., Higgins, G. E., & Potter, H. (2021). Examining the Effects of Race/Ethnicity and Race Relations on Public Opinion about the Overrepresentation of Black People in U.S. Prisons. *Victims & Offenders*, *16*(1), 1–19. https://doi.org/10.1080/15564886.2020.1850579

Cornesse, C., Blom, A.G., Dutwin, D., Krosnick, J.A., De Leeuw, E.D., Legleye, S., Pasek, J., Pennay, D., Phillips, B., Sakshaug, J.W. & Struminskaya, B. (2020). A review of conceptual approaches and empirical evidence on probability and nonprobability sample surveyresearch. *Journal of Survey Statistics and Methodology, 8*(1). https://doi.org/10.1177/14707853221085206

Douglas, B.D., Ewell, P.J. & Brauer, J. (2023). Data quality in online human-subjects search: Comparisons between MTurk, Prolific, CloudResearch, Qualtrics, and SONA. *Plos One.* https://doi.org/10.1371/journal.pone.0279720

Eisler, P., So, L., Szep, J. Smith, G., & Parker, N. (2020, October 16). Dying Inside: The Hidden Crisis in America's Jails, Part One. *Reuters.* https://www.reuters.com/investigates/special-report/usa-jails-deaths/

Gamson, W. (1992). *Talking Politics*. Cambridge University Press.

Hillygus, D.S. & LaChapelle, T. (2022). Diagnosing survey response quality, Handbook on Politics and Public Opinion. https://doi.org/10.4337/9781800379619.00011

Kim, J. (2023, June 3). Heart transplant recipient dies after being denied meds in jail; ACLU wants an inquiry. *NPR*. https://www.npr.org/2023/06/03/1178384421/heart-transplant-recipient-dies-after-being-denied-meds-in-jail-aclu-wants-an-in

Kim, S., Ting, A., Puisis, M., Rodriguez, S., Benson, R., Mennella, C., & Davis, F. (2007). Deaths in the Cook County Jail: 10-Year Report, 1995–2004. *Journal of Urban Health*, *84*(1), 70–84. https://doi.org/10.1007/s11524-006-9115-9

Mcdonald, J. (2023, December 7). Judge refuses to dismiss lawsuits over San Diego County jail death that sheriff called 'natural' in 2019. *The San Diego Union*. https://www.sandiegouniontribune.com/news/watchdog/story/2023-12-07/judge-refuses-to-dismiss-lawsuit-over-san-diego-county-jail-death-that-sheriff-called-natural-in-2019

LaDonna, K.A., Taylor, T. & Lingard, L. (2018). Why open-ended survey questions are unlikely to support rigorous qualitative insights. *Academic Medicine, 93*. https://doi.org/10.1097/ACM.0000000000002088

Lozano, J. G., & Molina, D. K. (2015). Deaths in Custody: A 25-Year Review of Jail Deaths in Bexar County, Texas. *The American Journal of Forensic Medicine and Pathology*, *36*(4), 285. https://doi.org/10.1097/PAF.0000000000000183

May, D. C., Applegate, B. K., Ruddell, R., & Wood, P. B. (2014). Going to Jail Sucks (And It Really Doesn't Matter Who You Ask). *American Journal of Criminal Justice*, *39*(2), 250–266. https://doi.org/10.1007/s12103-013-9215-5

O'Hear, M., & Wheelock, D. (2019). Violent Crime and Punitiveness: An Empirical Study of Public Opinion. *Marquette Law Review*, *103*, 1035.

Powell, C. E., & Zevitz, R. G. (2011). Death behind bars: An examination of mortality in jail, lockup, and hospital confinement – a historical study. *Criminal Justice Studies*, *24*(1), 105–124. https://doi.org/10.1080/1478601X.2011.544402

Reja, U., Manfreda, K.L., Hlebec, V. & Vehovar, V. (2003). Open-ended vs. Closed-ended Questions in Web Questionnaires. *Developments in Applied Statistics*. https://begrijpelijkeformulieren.org/sites/begrijpelijkeformulieren/files/Reja_e.a._Open-ended_vs._Close-ended_Questions_in_Web.pdf

Rios, E. (2023, October 16). Notorious US jail accused of 'unconscionable failure' after man's 'slow, tortuous death.' *The Guardian.* https://www.theguardian.com/us-news/2023/oct/16/santa-rita-jail-alameda-maurice-monk-schizophrenia-medication-death.

Roberts, M. E., Stewart, B. M., Tingley, D. Lucas, C., Leder-Luis, J., Gadarian, S.K., Albertson, B., Rand, D.G. (2014). Structural Topic Models for Open-Ended Survey Responses. *American Journal of Political Science, 58*. https://doi.org/10.1111/ajps.12103

Shapiro, N., & Keel, T. (2023). Naturalizing unnatural death in Los Angeles County jails. *Medical Anthropology Quarterly*. https://doi.org/10.1111/maq.12819

Texas Justice Initiative. (2023). Deaths in Custody. https://texasjusticeinitiative.org/datasets/custodial-deaths

Woolredge, J.D. & Winfree, L.T. (1992). An Aggregate-Level Study of Inmate Suicides and Deaths Due to Natural Causes in U.S. Jails. *Journal of Research in Crime and Delinquency*, *29*(4), 466–479. https://doi.org/10.1177/0022427892029004004

Appendix A

Texas Commission on Jail Standards, Noncompliance Report.

TEXAS COMMISSION ON JAIL STANDARDS

EXECUTIVE DIRECTOR
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NOTICE OF NON-COMPLIANCE

RUSK COUNTY JAIL

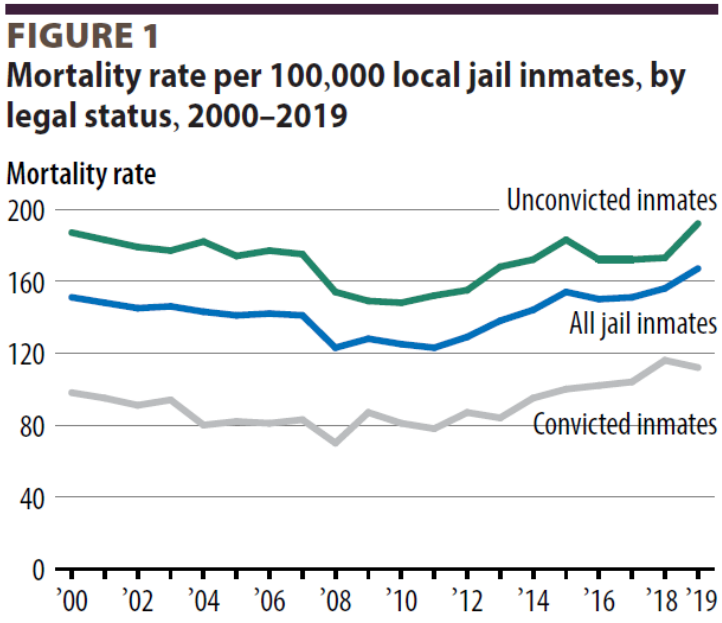
August 28, 2023

Please reference the Inspection Requirements Review and Jail Inspection Report issued on August 28, 2023, detailing the specific issues that resulted in the issuance of this notice of non-compliance.

Minimum Standards Violated:	Corrective Measure Required	Date Corrective Action Must Be Completed
275.01	Every facility shall have the appropriate number of jailers at the facility 24 hours each day. Facilities shall have an established procedure for documented, face-to-face observation of all inmates by jailers no less than once every 60 minutes. Observation shall be performed at least every 30 minutes in areas where inmates known to be assaultive, potentially suicidal, mentally ill, or who have demonstrated bizarre behavior are confined. **A review of documentation and video received after a custodial death revealed that while jailers made observation rounds, the jailers did not view the inmate face-to-face as required by minimum jail standards.**	**Upon receipt of this notice.**

Appendix B

Figure 2. Mortality per 100,000 local jail inmates, by legal status, 2000-2019.



Appendix C

Survey Disclosure Statement. Based on AAPOR Standards for Disclosure https://aapor.org/standards-and-ethics/disclosure-standards/#1667933142550-55785157-2071

1. **Data Collection Strategy:** Online opt-in survey through CloudResearch and conducted in Qualtrics.
2. **Sponsor and Who Conducted:** $500 of funding was provided by the University of Texas at Dallas' School of Economic, Political and Policy Sciences (EPPS). In exchange for feedback on Cloud Research's textbook development, they provided $500 for funding. They were not part of designing the study. Researchers at the School of EPPS in a Survey Design course conducted the survey in Qualtrics.
3. **Measurement Tools/Instructions:** All relevant questions are included in Appendix # along with consent form.
4. **Population Under Study:** Subjects were recruited via CloudResearch's propriety methodology. Screening criteria were demographic quotas meant to approximate the U.S. population.
5. **Method Used to Generate and Recruit Sample**: This survey did not have a sampling frame. This is an online, opt-in, nonprobability sample. It did include demographic quotas to screen participants to approximate the U.S. population. People who signed up for CloudResearch were the supplier of the sampling frame. Participants who completed the survey received $3.
6. **Method and Mode of Data Collection:** Survey respondents recruited from CloudResearch took the survey online on the Qualtrics platform. The survey was in English.
7. **Dates of Data Collection:** November 15 to 16, 2023.
8. **Sample sizes:** 336 respondents.
9. **Data Weights:** Data was not weighted for this round of research.
10. **Data Processing and Procedures to Ensure Quality:** Recognizing this was an omnibus survey, we randomized the order of the question blocks.

IRB: IRB 24-196. Approval November 2, 2023 to November 2, 2026.

Appendix D: Survey Questions

D1. Consent Form.

UT DALLAS Qualtrics

Welcome to "***Attitudes and Opinion Survey***," a web-based experiment that examines *your attitudes and opinions about a number of issues today, including politics, mental health, and gender roles*. Before taking part in this study, please read the consent form below and click on the "I Agree" button at the bottom of the page if you understand the statements and freely consent to participate in the study.

Consent Form

This study involves a web-based experiment designed to *learn about your attitudes and opinions*. The study is being conducted by Curtis Bram of The University of Texas at Dallas, and it has been designated by The University of Texas at Dallas Human Subjects Research Office (HSR) as exempt from review by an Institutional Review Board. *No deception is involved*, and the study involves no more than minimal risk to participants (i.e., the level of risk encountered in daily life).

Participation in the study typically takes *about 15 minutes* and is strictly confidential. Participants begin by *answering online survey questions*.
All responses are treated as confidential, and in no case will responses from individual participants be identified. Rather, all data will be pooled and published in aggregate form only. Participants should be aware that while the experiment is being run from a "secure" https server of the kind typically used to handle credit card transactions, there is a small possibility that responses could be viewed by unauthorized third parties (e.g., computer hackers).

Participants will receive *payment in accordance with their agreements with CloudResearch, which may be up to $2*.

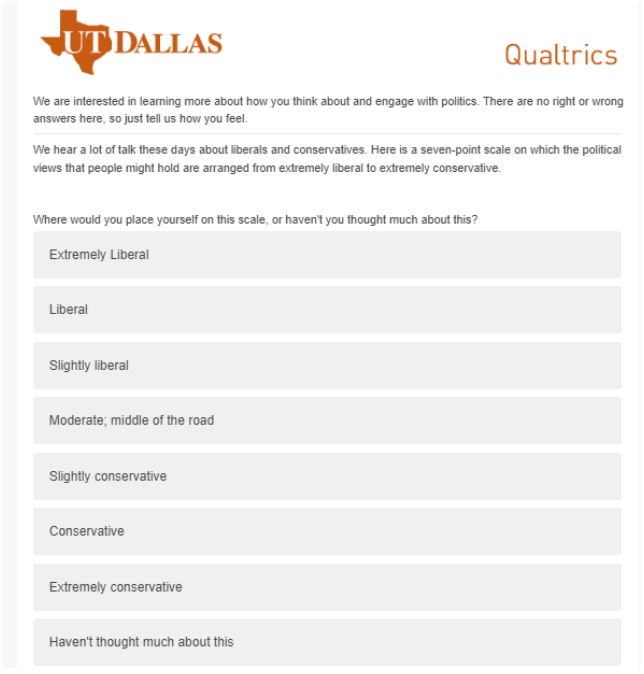
Participation is voluntary, refusal to take part in the study involves no penalty or loss of benefits to which participants are otherwise entitled, and participants may withdraw from the study at any time without penalty or loss of benefits to which they are otherwise entitled.

If participants have further questions about this study, they may contact the Principal Investigator, *Curtis Bram at Curtis.bram@utdallas.edu*; Participants who want more information about their rights as a participant or who want to report a research related concern may contact The University of Texas at Dallas Human Subjects Research Office at (972) 883-4575.

By its very nature, the topic of this survey may be upsetting. If you find that to be true, we encourage you to discuss this with a trained professional.
If you are 18 years of age or older, understand the statements above, and freely consent to participate in the study, click on the "I Agree" button to begin the experiment.

I consent to participate in this study

D2. Demographic: Ideology.



UT DALLAS Qualtrics

We are interested in learning more about how you think about and engage with politics. There are no right or wrong answers here, so just tell us how you feel.

We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative.

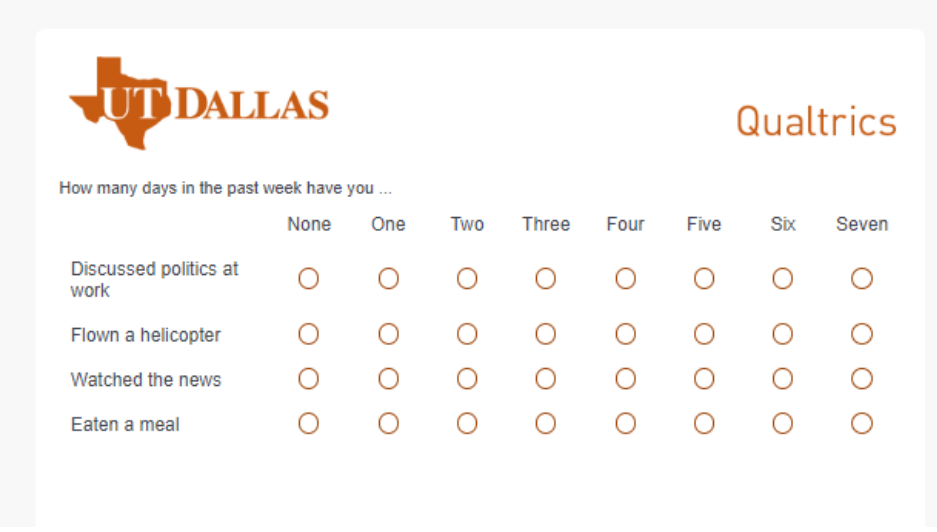
Where would you place yourself on this scale, or haven't you thought much about this?

- Extremely Liberal
- Liberal
- Slightly liberal
- Moderate; middle of the road
- Slightly conservative
- Conservative
- Extremely conservative
- Haven't thought much about this

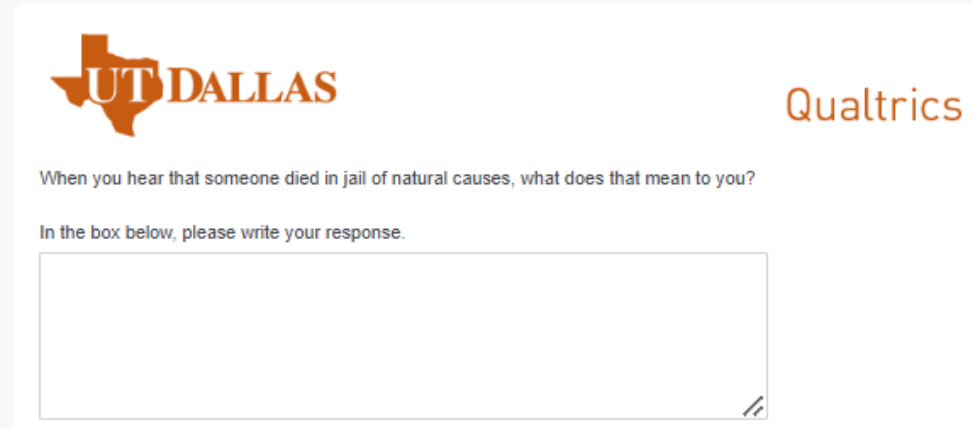
D3. Demographic: Party.

D4. Demographic: Party: Strong Democrat/Republican.

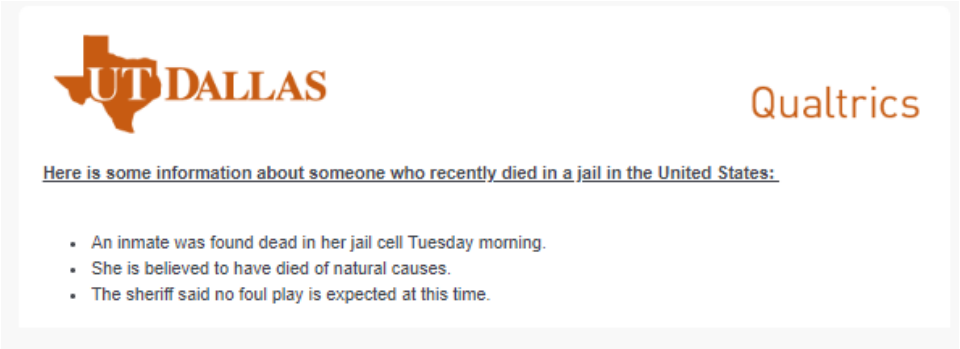
D5. Attention Check.



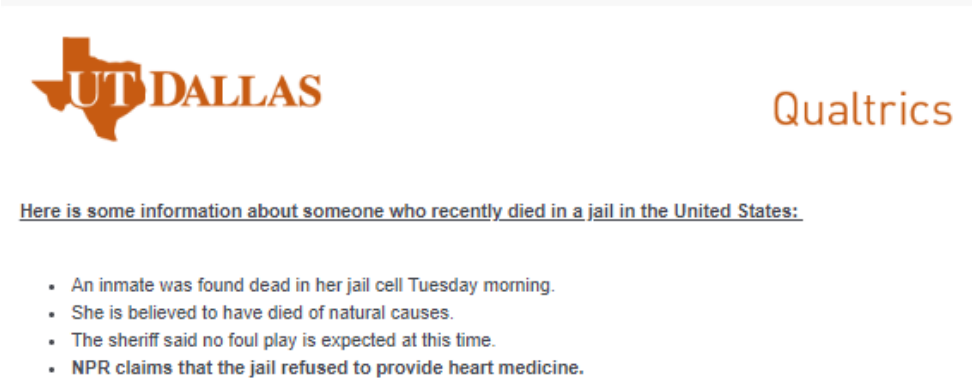
D6. Open-Ended Question



D7. Control Group Stimulus

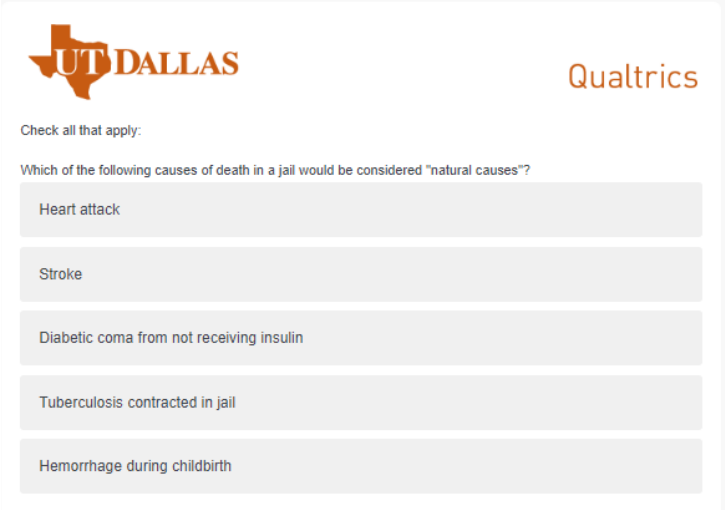


D8. Treatment Group Stimulus

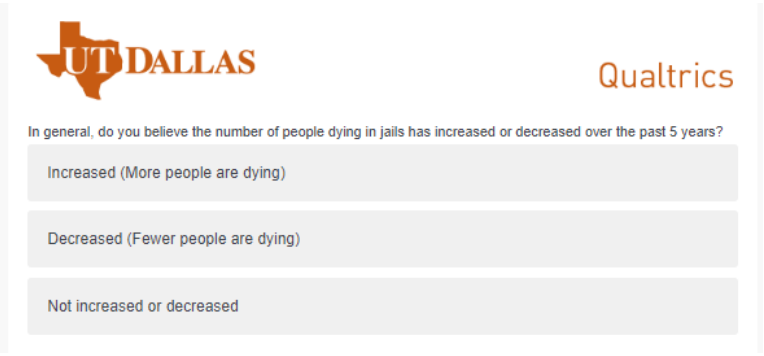


D9. Main Outcome: Jail Wrongdoing

D10. Natural Death Cause Count



D11. Increasing



D12. Problem

D13. News

Appendix E. Open-ended Question Coding.

Google sheet for all responses and hand-coding:

https://docs.google.com/spreadsheets/d/1-LXICCuEppaO0IERE4nGrcLAi-HPEsaO9JDhnm9cY7A/edit?usp=sharing

Appendix F.

Table 3. Survey-weighted Generalized Linear Model

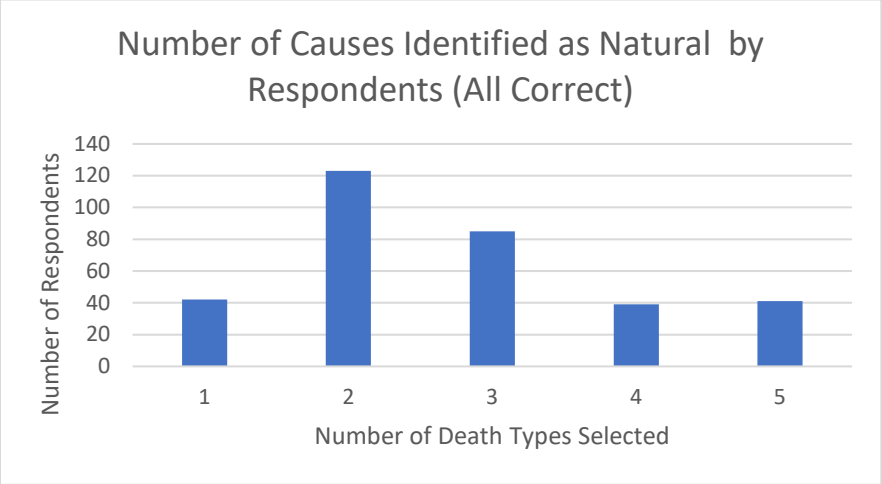
	Dependent variable:	
	Perception of Jail Wrongdoing	
	(1)	(2)
Treatment	1.532***	1.525***
	(0.155)	(0.141)
News		0.001
		(0.056)
Increasing		−0.170**
		(0.083)
Problem		0.450***
		(0.094)
Constant	2.022***	1.661**
	(0.098)	(0.833)
Observations	330	330
Log Likelihood	−545.887	−514.012
Akaike Inf. Crit.	1,095.774	1,038.023
Note:	*p<0.1; **p<0.05; ***p<0.01	

Effects on Perception of Jail Wrongdoing. Weighted for race, gender, ethnicity, and party.

Appendix G.

Figure 5. Number of Causes of Death Selected by Respondents.

All options were correct. More understanding of natural cause deaths would see more options selected.



Appendix H.

Table 4. OLS Regression Results of Treatment Effects on Count of Natural Causes Count

	Dependent variable:			
	Causes Count			
	(1)	(2)	(3)	(4)
Treatment	0.113	0.127	0.119	0.123
	(0.132)	(0.132)	(0.132)	(0.132)
Liberalism		-0.045		-0.022
		(0.038)		(0.040)
White		0.240*		0.258*
		(0.135)		(0.140)
Female		-0.098		-0.071
		(0.123)		(0.126)
News			0.027	0.059
			(0.067)	(0.071)
Increasing			0.013	0.009
			(0.071)	(0.072)
Problem			-0.189**	-0.162*
			(0.082)	(0.085)
Constant	2.678***	2.705***	3.208***	3.055***
	(0.098)	(0.219)	(0.651)	(0.666)
Observations	331	331	331	331
R^2	0.002	0.020	0.021	0.034
Adjusted R^2	-0.001	0.007	0.009	0.013
Residual Std. Error	1.196 (df = 329)	1.191 (df = 326)	1.190 (df = 326)	1.188 (df = 323)
F Statistic	0.736 (df = 1; 329)	1.622 (df = 4; 326)	1.748 (df = 4; 326)	1.606 (df = 7; 323)
Note:				*p<0.1; **p<0.05; ***p<0.01