Drug and Alcohol Dependence Reports 13 (2024) 100299

Contents lists available at ScienceDirect

Drug and Alcohol Dependence Reports

journal homepage: www.elsevier.com/locate/dadr

The power of lived experience in optimizing US policymakers' engagement with substance use research: A series of rapid-cycle randomized controlled trials

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HIGHLIGHTS

- Increasing policymakers' engagement with substance use research is challenging.
- Narratives as a best practice for science communication are rarely evaluated.
- Five trials show the benefit of narratives describing lived experience is nuanced.
- Engagement generally increased when the sender was the narrative author.
- This highlights the power of people with lived experience sharing their stories.

ARTICLE INFO

Keywords:
Drug policy
Substance use disorders
Science-policy communication
Research engagement

ABSTRACT

Background: Research can inform policies on substance use/substance use disorders (SU/SUDs), yet there is limited experimental investigation into strategies for optimizing policymakers' engagement with SU/SUD research. This study tested the use of narratives to boost policymakers' research engagement.

Methods: In five rapid-cycle randomized controlled trials, SU/SUD research fact sheets were emailed to US legislative policymakers. We tested the use of narratives on the number of email opens, fact sheet clicks, and replies, relative to control emails without narratives. Narratives described lived experience with SU/SUD or motivations to study SU/SUD. The sender was a person with lived experience who authored the narrative or an author of the fact sheet.

Results: When the narrative was about the sender's *own* lived experience (Trial 1), or when the narrative was about the sender's motivations to study SU/SUDs (Trial 2), the fact sheet was clicked more than the control (p=.049; p=.012; respectively). When the narrative was about someone *else's* experience (Trials 3 and 4), the email was opened (p's<.001) and replied to (p's<.001) less, and the fact sheet was clicked (p's<.001) less. Lastly, emails with lived experience narratives were replied to more than the control, regardless of sender (fact sheet author: p=.028; narrative author: p=.002; Trial 5), but were opened more if the sender authored the narrative (p<.001).

Conclusions: Policymakers' engagement with SU/SUD research generally increased when the sender was telling their own story. This work highlights the power of people with lived experience and informs strategies for optimizing policymakers' engagement with SU/SUD research.

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https://doi.org/10.1016/j.dadr.2024.100299
Received 6 September 2024; Received in revised form 26 October 2024; Accepted 13 November 2024
Available online 15 November 2024

1. Introduction

Alcohol and drug misuse have contributed to a decline in life expectancy (Case and Deaton, 2015; Woolf et al., 2018), a reversal not seen in any other wealthy country, even prior to the COVID-19 pandemic. In 2021, more than 100,000 Americans died from drug overdoses (Centers for Disease Control and Prevention, 2021), and approximately 125,200 die from alcohol-attributable causes per year (Esser et al., 2022). These record-breaking rates, in addition to the high prevalence of substance use disorders (SUDs) (Mojtabai, 2022), come despite hundreds of research interventions designed to prevent, treat, or reduce the harms associated with substance use (SU) and SUDs. This paradox may stem from known barriers SU/SUD researchers face in getting rigorous and unbiased research into the hands of policymakers (Bogenschneider, 2020; Bogenschneider and Corbett, 2011; Long et al., 2021; Oliver et al., 2014, 2022; Scott et al., 2023a), such as time constraints, university reward structures, lack of training opportunities for researchers to gain knowledge of the process of sharing research with policymakers, and differing norms and objectives between researchers and policymakers.

In the absence of rigorous and unbiased research effectively reaching policymakers, industry research efforts and lobbyists fulfill the demand for policy-relevant research evidence (McCambridge et al., 2018; Rossow and McCambridge, 2019). Such research may be biased since it is meant to skew policymakers towards a more favorable view of their cause (McGarity and Wagner, 2010). Though there are many instances of corporations performing high quality and unbiased research, there also is greater motivation in for-profit organizations to manipulate study designs in their industry's favor (Lexchin et al., 2003), or simply to under report findings that might negatively impact their interests (Babor and Robaina, 2013). If biased research like this is most accessible to policymakers due to corporate financial backing, evidence-based policy changes that lead to public health benefits may be fruitless.

Alternatively, theory suggests that if unbiased, rigorous, and relevant research reaches the right policymakers at the right time in the right way, they may be more likely to use high quality evidence to inform policy decisions that can achieve population-level impacts (Bogenschneider and Corbett, 2021; Kingdon, 2011; Scott et al., 2014). For instance, the Icelandic Model of Adolescent Substance Use Prevention substantially reduced adolescent SU by increasing policymakers' engagement with research on risk and protective factors through researcher-policymaker collaborations (Kristjansson et al., 2010; Sigfúsdóttir et al., 2009, 2010). In the US, the Mainstreaming Addiction Treatment (MAT) Act of 2021 (Mainstreaming Addiction Treatment Act of 2021, n.d.) eliminated the waiver that was required through the Drug Enforcement Administration to prescribe buprenorphine, which was a restriction that was not supported by scientific evidence (National Academies of Sciences, 2019). These evidence-based provisions can increase access to treatment for opioid use disorder and save lives from overdoses.

Researchers and science communicators can increase the successful use of quality scientific evidence in policymaking by improving policymakers' access to research evidence on SU/SUD through relationships with them. The SciComm Optimizer for Policy Engagement (SCOPE) model aims to facilitate engagement between researchers and policymakers via research disseminations by using continuous quality improvement to experimentally test different message frames (see Fig. 1). The SCOPE model leverages theory pointing to the need for research evidence to be relevant to current policy priorities and available in real time so that it can be used within discrete policy windows (Mackie et al., 2015). In fact, one of the most frequently reported facilitators of policymakers' use of research evidence involves access to *relevant and timely* research (Oliver et al., 2014). This contrasts with one-way dissemination efforts that "push" research information without considering policymakers' current policy priorities (Tseng, 2012).

Policymakers' current policy goals can be learned through interactions occurring as part of relational research-policy bridging approaches, such as the Research-to-Policy Collaboration (RPC) model, or through scanning their public discourse (Crowley et al., 2018, 2021a, 2021b; Scott et al., 2019). The RPC model aims to build relationships between researchers and policymakers by assessing their needs for research evidence and responding accordingly with nonpartisan research information. If several different legislative staff have needs and questions about the same topic or reflect similar priorities, it would be considered timely and relevant enough to respond with broad dissemination of corresponding research syntheses, typically in the form of one- to two-page fact sheets. This dissemination of timely and relevant research evidence can in turn facilitate additional interactions. Accordingly, the SCOPE model supplements this interactive bridging approach by forming feedback loops and expanding the number of policymakers who receive the research syntheses resulting from the interactions. More specifically, the steps of model include: assessing policymakers' current policy priorities, developing corresponding content in the form of concise fact sheets, identifying officials and/or staff who are likely to find the content useful, creating different messaging frames to test, disseminating the fact sheets, and analyzing the results so they may inform hypotheses for future testing.

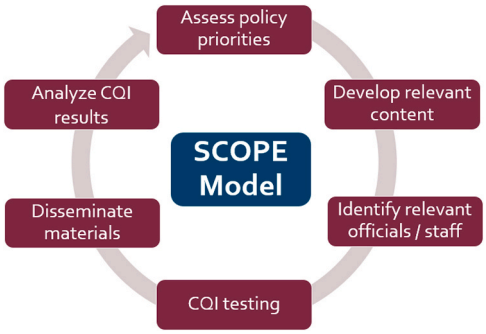

Fig. 1. The SciComm Optimizer for Policy Engagement (SCOPE) Model. Note. CQI = continuous quality improvement.

Previous work using the SCOPE model has shown that evoking emotional responses (Long et al., 2021) and cueing a topic's relevance (Scott et al., 2023a)can increase policymakers' electronic engagement with research evidence. Further, a recent experimental evaluation of the SCOPE model's impact demonstrated its ability to increase state legislators' use of research evidence in social media posts (Scott et al., 2023b). The effectiveness of these strategies for improving engagement and use of research demonstrates the utility of tailoring communication techniques to increase the psychological closeness and personal relevance of an issue. Psychological distance in this context represents how close the reader feels to the subject of a message (Liberman and Trope, 2014). These SCOPE studies, however, were focused on research topics related to racial justice and the COVID-19 pandemic, leaving strategies for optimizing engagement with SU/SUD research unclear.

Related work has shown that framing effects can influence behaviors and beliefs. For example, cross-sectional research finds that state legislators' support for opioid use disorder and behavioral health parity laws were more strongly associated with their personal beliefs about treatment and fiscal impacts rather than their political party, ideology, or individual demographics (Nelson and Purtle, 2020; Purtle et al., 2019). Additionally, varying narratives about particular topics can influence public support for mental health and SUD policy issues (Kennedy-Hendricks et al., 2016; McGinty et al., 2018, 2015).

This suggests that framing strategies that increase personal relevance and decrease psychological distance from research messages could be effective in shifting lawmakers' beliefs and later actions. Topics that feel psychologically closer feel more personally relevant. While many factors can influence psychological closeness, we focus on the use of narratives in the current study for several reasons. Narratives are especially useful in engaging communication, with past work showing that narratives,

especially first-person narratives, are effective in reducing psychological distance (Cao and Decker, 2015). In communications research, transportation theory describes how narratives can reduce the psychological distance of a topic. Being engrossed and invested in a story allows readers to internalize a message with which they might not normally engage deeply (Gebbers et al., 2017; Green and Brock, 2000). First-person narratives are particularly good at reducing distance as they naturally evoke perspective taking (Salem et al., 2017; Van Lissa et al., 2016). Accordingly, using narratives may be an effective strategy for improving policymakers' engagement with SU/SUD research.

However, many persuasion/advocacy techniques, including narratives, have yet to be tested in the unique context of messages to policymakers. Additionally, there is a great deal of competition for policymakers' attention. Since lawmakers have a particularly powerful and direct influence on SU/SUD policies, it is vital to investigate framing strategies to optimize research engagement efforts with this population. The aim of the present study is to experimentally test different narrative frames as tools for optimizing policymakers' engagement with SU/SUD research. We hypothesized that using narratives in the email bodies would result in more email opens, clicks on the fact sheet links, and email replies than not using narratives. We generated more specific hypotheses between each trial based on the prior trial's results, predicting that lived experience with SUD, first-person narratives, shorter narratives, and the sender being the narrative author would generate greater engagement compared to the control. These predictions are all driven by an overarching theory that increasing psychological closeness should increase engagement.

2. Methods

2.1. Study design and participants

Following the steps outlined in the SCOPE model, five rapid-cycle randomized controlled trials were conducted between May 2020 and August 2022. In each trial, a fact sheet that contained timely research on SU/SUD (as identified through RPC meetings or public discourse scans) was disseminated via email to US state and federal policymakers who work on committees related to substance use and their staff ($Ns = 5964 – 11,212$). Participants were identified via an online Client Relationship Management (CRM) software, Quorum, which was developed specifically for legislative outreach. They were then randomized into different messaging conditions testing the use of narratives. In accordance with the nature of rapid-cycle experimentation, results of trials informed the hypotheses for subsequent trials. This study was deemed to be exempt by the Institutional Review Board at the author's university because it is a low-risk study involving observation of natural, routine behavior that elected public officials engage in daily (i.e., engaging with an email). However, we added a disclosure statement to the email, "Data on email open and click rates may be used for research and quality improvement." Contact information was also provided so the email recipient could contact study personnel if desired.

Due to the observational nature of this project, we do not have access to demographic information. However, as a whole, state legislators are predominantly White (82 %), male (76 %), and on average 56 years old (Kurtz, 2015). Similarly, Congressional legislators are primarily White (80.3 %) and male (75.8 %; Quorum, 2018).

2.2. Procedures

Quorum was used to select legislators and staff, send the messages, and monitor email opens and fact sheet clicks. Emails were created to appear typical for an informational email, written in default sized black text, using no special formatting or graphics. Additionally, the sender name appeared as their first name and last name only (i.e., degrees were not mentioned), and the email was sent from a domain independent of the author's affiliation. Recipients could determine affiliation and credentials from the sender's signature block in the email. Recipients were invited to reply if they had questions or wanted to discuss further.

2.2.1. Trial specifics

Five messaging trials were conducted by comparing various forms of narratives to a control message with no narrative that only described the topic of the fact sheet. All emails within a trial included a link to the same current and relevant fact sheet about SU/SUD. Each email in a given trial used the same subject line and had similar lengths (except Trial 4), while subject lines between trials differed to reflect the topic of the fact sheet that was being disseminated. Only the email body and sender were manipulated. See the Supplement for the specific test, subject line, sender, and full email body content for each trial. In each trial, message recipients were randomly assigned to message conditions.

In Trials 1 and 2, the narratives were written by a person with lived experience of addiction and recovery at the time of disseminating the research, not by the research team. We aimed to empower the narrative authors to authentically tell their stories how they wished, include aspects of their identity that they deemed to be important, and to share as much or as little of their story as they felt comfortable doing so. We did not feel that it would be appropriate to edit these individuals' own personal narratives. In Trials 3, 4, and 5, the narratives were pulled from the Story Powered Initiatives website (https://storypowered.org), which is an initiative that aims to reduce stigma by encouraging people to share their lived experience with SUD. All people who submit their stories to be shared on this website agree to have them shared publicly. These narratives were only adapted for the testing condition (i.e., the person it was told in and length). In Trials where the sender was the narrative author, we worked with the author for them to approve the messages before we sent them and got their approval to make the emails appear to come from them via Quorum, which allowed us to track the email metrics. Because the narratives were written by the people with lived experience themselves, some of the language in these narratives may include what the SU/SUD field classifies as stigmatizing, or they may include identity attributes that may not appear to be relevant to the testing (e.g., race). However, we want to emphasize that they were written how the person with lived experience wanted them to be and not necessarily how academic researchers may think it should be.

Trial 1 tested a control condition email against the use of a narrative in the email body that described the sender's personal lived experience with SUD. The sender for both message conditions was the author of the narrative, who also contributed content to the fact sheet.

Trial 2 tested the control condition against two types of narratives, both from a SU/SUD researcher with lived experience who contributed to the fact sheet. The first narrative condition described the author's research narrative as inspired by her lived experience with SUD. The second narrative condition described the author's research narrative without reference to their lived experience of SUD.

Trial 3 tested the control condition against the narrative written in first person and the narrative written in third person. The sender was an editor of the fact sheet, and, notably, was not the narrative author.

Trial 4 tested the control condition against a long version of the narrative condition and an abbreviated version of the narrative condition. Both were written in third person. The sender was an author of the fact sheet, and again was not the narrative author.

Trial 5 tested the control condition against the narrative being told in the 3rd person, sent by one of the fact sheet authors, and the narrative being told in the 1st person, sent by the narrative author, with the goal of further examining the role of the sender's identity in relationship to the narrative. In other words, we were interested in testing the effects of the sender telling someone else's story and the sender telling their own story.

2.3. Outcomes

Email open rates, fact sheet clicks, and replies for all participants

were tracked for 14 days after the emails were sent. Opens were tracked using an image download tracker, which is standard practice in the industry. The tracker involves an invisible, one-pixel image in the email body that is downloaded when the email is opened. While the subject lines were not experimentally tested, we expect that the beginning of the email body or preview and the sender may have an effect on email open rates, given that these characteristics will be visible to the recipient prior to opening. Although the amount of text that is visible in the preview differs by the recipient's email provider, we expect that all recipients were able to view at least the greeting. However, we do acknowledge that in Trials 4 and 5, the beginning of the email body is identical across conditions. Industry-standard magic links to the fact sheets registered how many times they are clicked.

2.4. Statistical analysis

For each trial, the control condition was the reference to which the experimental conditions were compared. Negative binomial regressions were conducted to test whether the experimental manipulations resulted in higher rates of email opens and clicks on the fact sheet compared to a control email, given the overdispersion of the distribution. The probability of a reply to the email was analyzed using logistic regression, since the reply variable was a dichotomous variable (reply vs. no reply).

3. Results

Results on email opens and fact sheet clicks are presented in Tables 1 and 2, respectively. Results on email replies are presented in Table 3.

Trial 1 compared a personal narrative with lived experience to a control message with no lived experience, with the sender being the narrative author and one of the fact sheet authors. Recipients of the email body that described a personal narrative with lived SU/SUD experience clicked the fact sheet 1.37 times as frequently as the control that did not include a narrative (p=.049). There were, however, no significant differences in opens by email message condition and there were no differences in probability of a reply by condition.

Trial 2 compared the impact of a research narrative with and without lived experience to a control message, with the sender being the narrative author and one of the fact sheet authors. The recipients of the email body that described the research narrative with no lived experience clicked the fact sheet 1.32 times as frequently as the control (p=.012). The research narrative with lived experience was significantly less likely to be replied to than the control (OR=0.67, p=.044). There were no significant differences in opens for either narrative condition.

Trial 3 compared the impact of third-person and first-person narratives to a control message, with the sender being a fact sheet editor (not the narrative author). Unlike the prior trials, the control outperformed the narrative conditions in both clicks and opens. The third-person narrative resulted in about half (IRR=0.46) as many opens (p<.001) and roughly a fifth (IRR=0.23) as many clicks (p<.001) as the control. Similarly, the first-person narrative resulted in 0.43 times as many opens (p<.001) and only a fifth (OR=0.19) as many clicks as the control (p<.001). Due to a technical error, results are not available for replies in Trial 3.

Trial 4 compared short and long narratives, written in third person, to a control message, with the sender being a fact sheet author (not the narrative author). Those who received the long narrative opened the email 0.77 as many times (p<.001), clicked the fact sheet link 0.35 as many times (p<.001), and were about half (OR=0.45) as likely to have replied as recipients of the control message (p<.001). Those who received the short narrative opened the email 0.81 as many times (p<.001), clicked the fact sheet link 0.36 as many times (p<.001), and were about half (OR=0.55) as likely to have replied (p<.001) as recipients of the control message.

Trial 5 compared a first-person narrative, with the sender being the narrative author (i.e., the sender telling their own narrative) and a third-person narrative, with the sender being one of the fact sheet authors (i.e., the sender telling someone else's narrative) to a control message without a narrative and sent from the fact sheet author. The third-person, fact sheet author email was 1.61 times more likely to have

Table 1
Results of negative binomial models testing the effects of email body on number of email opens.

	N	Opens (ŷ)	% Opens	IRR (95 % CI)	SE	z	p
Trial 1: Challenges faced by parents with addiction	5964	2675 (0.45)	23.5				
Control (ref); Narrative & fact sheet author sender	2974	1280 (0.43)	23.4	-	-	-	-
Personal narrative with lived experience; Narrative & fact sheet author sender	2991	1395 (0.47)	23.6	1.08 (0.96, 1.23)	.07	1.26	.206
Trial 2: Substance use research for [legislator name]	9496	5726 (0.60)	26.0				
Control (ref); Narrative & fact sheet author sender	3190	1907 (0.60)	26.6	-	-	-	-
Research narrative with lived experience; Narrative & fact sheet author sender	3134	1819 (0.58)	26.1	0.97 (0.86, 1.10)	0.06	−0.47	.636
Research narrative with no lived experience; Narrative & fact sheet author sender	3172	2000 (0.63)	25.3	1.06 (0.93, 1.19)	0.07	0.86	.388
Trial 3: Fach sheet on interventions for substance use disorders	11,099	5960 (0.54)	24.2				
Control (ref); Fact sheet editor sender	3703	3142 (0.85)	38.0	-	-	-	-
Third-person narrative; Fact sheet editor sender	3699	**1456 (0.39)**	**17.7**	**0.46 (0.41, 0.52)**	**0.03**	**−13.60**	**<.001**
First-person narrative; Fact sheet editor sender	3697	**1362 (0.37)**	**16.7**	**0.43 (0.39, 0.49)**	**0.02**	**−14.67**	**<.001**
Trial 4: Resource on substance use helplines and peer support	11,212	8012 (0.71)	36.0				
Control (ref); Fact sheet author sender	3729	3093 (0.83)	36.2	-	-	-	-
Long third-person; Fact sheet author sender	3747	**2404 (0.64)**	**35.7**	**0.77 (0.71, 0.84)**	**0.03**	**−5.74**	**<001**
Short third-person; Fact sheet author sender	3736	**2515 (0.67)**	**36.1**	**0.81 (0.74, 0.89)**	**0.03**	**−4.68**	**<.001**
Trial 5: Research on prescription opioid labels	10,604	6787 (0.64)	36.3				
Control (ref); Fact sheet author sender	3533	2128 (0.60)	35.9	-	-	-	-
Third-person; Fact sheet author sender	3534	2149 (0.61)	35.9	1.00 (0.93, 1.10)	0.04	0.21	.830
First-person; Narrative author sender	3537	**2510 (0.71)**	**37.2**	**1.18 (1.08, 1.28)**	**0.05**	**3.75**	**<.001**

Note. ŷ = predicted value of opens (the mean); IRR = incident ratio interval; CI = confidence interval; SE = standard error. % opens represents the percentage of recipients who opened the email, while the raw number of opens is the total number of opens across all recipients.

Table 2
Results of negative binomial models testing the effects of email body on number of clicks on the fact sheet.

	N	Fact Sheet Clicks (ŷ)	% Clicks	IRR (95 % CI)	SE	z	p
Trial 1: Challenges faced by parents with addiction	5964	454 (0.08)	4.2				
Control (ref); Narrative & fact sheet author sender	2974	192 (0.06)	3.4	-	-	-	-
Personal narrative with lived experience; Narrative & fact sheet author sender	2991	**262 (0.09)**	**5.0**	**1.37 (1.00, 1.87)**	**0.22**	**1.97**	**.049**
Trial 2: Substance use research for [legislator name]	9496	1298 (0.14)	7.8				
Control (ref); Narrative & fact sheet author sender	3190	384 (0.12)	7.3	-	-	-	-
Research narrative with lived experience; Narrative & fact sheet author sender	3134	414 (0.13)	7.5	1.07 (0.86, 1.34)	0.12	0.64	.523
Research narrative with no lived experience; Narrative & fact sheet author sender	3172	**500 (0.16)**	**8.4**	**1.32 (1.06, 1.64)**	**0.15**	**2.51**	**.012**
Trial 3: Fach sheet on interventions for substance use disorders	11,099	857 (.08)					
Control (ref); Fact sheet editor sender	3703	601 (.16)	16.2	-	-	-	-
Third-person narrative; Fact sheet editor sender	3699	**140 (.04)**	**3.8**	**0.23 (0.19, 0.29)**	**0.03**	**−12.83**	**<.001**
First-person narrative; Fact sheet editor sender	3697	**116 (.03)**	**3.1**	**0.19 (0.15, 0.24)**	**0.02**	**−13.71**	**<.001**
Trial 4: Resource on substance use helplines and peer support	11,212	821 (.07)					
Control (ref); Fact sheet author sender	3729	479 (.13)	12.8	-	-	-	-
Long third-person; Fact sheet author sender	3747	**168 (.04)**	**4.5**	**0.35 (0.27, 0.45)**	**0.05**	**−8.00**	**<.001**
Short third-person; Fact sheet author sender	3736	**174 (.05)**	**4.7**	**0.36 (0.28, 0.47)**	**0.05**	**−7.76**	**<.001**
Trial 5: Research on prescription opioid labels	10,604	502 (.05)					
Control (ref); Fact sheet author sender	3533	164 (.05)	4.6	-	-	-	-
Third-person; Fact sheet author sender	3534	143 (.04)	4.0	0.87 (0.64, 1.19)	0.14	−0.86	.388
First-person; Narrative author sender	3537	195 (.06)	5.5	1.19 (0.88, 1.60)	0.18	1.12	.261

Note. ŷ = predicted value of clicks (the mean); IRR = incident ratio interval; CI = confidence interval; SE = standard error. % clicks represents the percentage of recipients who clicked the link, while the raw number of clicks is the total number of clicks across all recipients.

received a reply than the control (p=.028), but was not significantly different from the control in terms of email opens or fact sheet clicks. The first-person, narrative author email was opened 1.18 times as frequently (p<.001) and was nearly twice as likely to have received a response (OR=1.93, p=.002) than the control message.

4. Discussion

The present study aimed to test the use of narratives and sender effects (i.e., fact sheet author/editor vs. narrative author) on state and federal policymakers' engagement with SU/SUD research. The results were nuanced and our hypothesis that using narratives would improve policymakers' engagement with SU/SUD was only supported under certain conditions (see Table 4). At times, using narratives even backfired. First, whether the use of narratives in the email body is an effective strategy for optimizing engagement may depend on the sender. Specifically, narratives seem to be particularly effective when they are sent from the same person telling the story, as opposed to someone else telling their story. This highlights the potential power of people with lived experience in telling their story.

Second, the findings from Trial 2 suggest that narratives were beneficial when the sender's identity appears to be congruent with a person's background, as opposed to when the story is from someone with multiple relevant identities that require the recipient to reconcile. For example, a researcher with lived experience of SUDs may be difficult to reconcile because of the stigmatization of people with SUD. These complex identities may make reducing psychological distance more challenging. Future work, however, is needed to further explore these differences in engagement.

When the sender shared someone else's narrative, narratives did not improve engagement and sometimes hindered it, regardless of whether the narrative was written in first or third person or length of the narrative. Though we expected first-person narratives to be more effective, these results suggest that direct engagement with the actual narrative author may be necessary for narratives to increase psychological closeness. Adding the additional step of someone else's narrative may make the narrative seem more contrived and make the recipient less inclined to engage. If the value of narratives as a messaging tool lies in its ability to connect the reader and its author, then it follows that an added layer of distance in the form of a third-party sender would dampen its effects. Collectively, it seems that being authentic and transparent is effective for reducing psychological distance and optimizing policymakers' engagement with research. However, given that this work is in its infancy, further trials are needed to investigate alternative explanations.

Our findings are somewhat consistent with the broader literature showing that framing can influence behaviors and beliefs (Kennedy-Hendricks et al., 2016; McGinty et al., 2018, 2015; Nelson and Purtle, 2020; Purtle et al., 2019). More specifically, McGinty and colleagues (McGinty et al., 2015) found that portraying successful treatment of mental disorders and SUDs improves public support and reduces stigma, which is consistent with our findings showing that the fact sheets in emails with narratives from individuals who have had success with treatment and are in active recovery were clicked on more than the control emails.

While the current study focused on testing narratives within the email body rather than subject lines, our prior work focused on testing whether different subject lines influenced email open rates. We have shown, for instance, that using words that evoke emotional responses in the subject lines of emails disseminating racial justice research and cueing relevance with personalized subject lines of emails disseminating research that was timely during the COVID-19 pandemic increased the likelihood of policymakers' opening the email (Long et al., 2021; Scott et al., 2023a). Future work is needed, however, to investigate whether these findings generalize to emails disseminating SU research and whether certain subject lines increase the open rates of emails with narratives of lived experience more than others.

Table 3
Results of logistic models testing the effects of email body on whether the recipient replied.

	Replies (ŷ)	OR (95 % CI)	SE	z	*p*
Trial 1: Challenges faced by parents with addiction	196 (0.03)				
Control (ref); Narrative & fact sheet author sender	96 (0.03)	-	-	-	-
Personal narrative with lived experience; Narrative & fact sheet author sender	100 (0.03)	1.05 (0.79, 1.39)	0.15	0.32	.746
Trial 2: Substance use research for [legislator name]	171 (0.02)				
Control (ref); Narrative & fact sheet author sender	65 (0.02)	-	-	-	-
Research narrative with lived experience; Narrative & fact sheet author sender	**44 (0.01)**	**0.67 (0.46, 0.99)**	**0.13**	**−2.01**	**.044**
Research narrative with no lived experience; Narrative & fact sheet author sender	62 (0.02)	0.97 (0.69, 1.38)	0.17	−0.14	.885
Trial 3 - N/A	-	-	-	-	-
Trial 4: Resource on substance use helplines and peer support					
Control (ref); Fact sheet author sender	133 (.04)	-	-	-	-
Long third-person; Fact sheet author sender	**61 (.02)**	**0.45 (0.33, 0.61)**	**0.07**	**−5.14**	**<.001**
Short third-person; Fact sheet author sender	**74 (.02)**	**0.55 (0.41, 0.73)**	**0.08**	**−4.11**	**<.001**
Trial 5: Research on prescription opioid labels					
Control (ref); Fact sheet author sender	35 (.01)	-	-	-	-
Third-person; Fact sheet author sender	**56 (.02)**	**1.61 (1.05, 2.46)**	**0.35**	**2.19**	**.028**
First-person; Narrative author sender	**67 (.02)**	**1.93 (1.28, 2.91)**	**0.41**	**3.13**	**.002**

Note. ŷ = predicted value of replies (the mean); OR = odds ratio; CI = confidence interval; SE = standard error. Response data not available for Trial 3.

Table 4
Results summary across all trials.

	Opens	Clicks	Replies
Trial 1: Challenges faced by parents with addiction			
Control (ref); Narrative & fact sheet author sender			
Personal narrative with lived experience; Narrative & fact sheet author sender	-	↑	-
Trial 2: Substance use research for [legislator name]			
Control (ref); Narrative & fact sheet author sender			
Research narrative with lived experience; Narrative & fact sheet author sender	-	-	↓
Research narrative with no lived experience; Narrative & fact sheet author sender	-	↑	-
Trial 3: Fach sheet on interventions for substance use disorders			
Control (ref); Fact sheet editor sender			
Third-person narrative; Fact sheet editor sender	↓	↓	n/a
First-person narrative; Fact sheet editor sender	↓	↓	n/a
Trial 4: Resource on substance use helplines and peer support			
Control (ref); Fact sheet author sender			
Long third-person; Fact sheet author sender	↓	↓	↓
Short third-person; Fact sheet author sender	↓	↓	↓
Trial 5: Research on prescription opioid labels			
Control (ref); Fact sheet author sender			
Third-person; Fact sheet author sender	-	-	↑
First-person; Narrative author sender	↑	-	↑

Note. Arrows indicate statistically significant effects; - indicates non-significance.

4.1. Limitations

Our results should be considered in the context of several limitations. First, it is unclear whether our results will replicate in other contexts, issue areas, senders, and political climates. Similarly, results may not generalize to policymakers who work on issues that are not related to SU or to policymakers outside of the US. Second, though emails within a trial were sent simultaneously, emails across trials were sent on different days and times, which may have affected the results due to the current political and environmental context (e.g., perceptions of science, prevalence of SUDs).

Third, because the personal narratives were not written by the research team, we had less control over other potential influences in the email bodies that may have affected policymakers' engagement with the research. We were not able to hold certain variables constant that we would have been able to otherwise if we had written the narratives ourselves. While it may be interesting for researchers to manipulate narratives to identify what facets of a story are most impactful for policymakers, there is risk associated with this. We might unintentionally contribute to the societal discourse that certain people's stories matter more than others, disempowering some voices. There are several resources available for researchers and organizations to better understand how to facilitate the sharing of lived experience in a way that is responsible and protects against unintended consequences. These include a foundational booklet from the Canadian HIV/AIDS Legal Network (2006), a set of guidelines from the National Council for Mental Wellbeing (Plante and Lovell, 2024), commentary from Cioffi et al. (2024) who expand upon these guidelines, and a number of recent academic manuscripts (Cioffi et al., 2023; Crabtree et al., 2016; Damon et al., 2017; Lipsett et al., 2023).

Fourth, while our engagement rates were overall low, they are consistent with previous outreach efforts with policymakers (~20 %-40 % open rates, ~3 %-8 % click rates; Long et al., 2021; Scott et al., 2023a,2023b). Finally, the same legislative office could have been emailed for more than one of the trials, which could have influenced engagement with emails later in the trial. However, with significant staff turnover, it is entirely possible that the same staffer did not see all five emails. Further, the sender between trials (and within Trial 5) differed, the specific topic for each trial differed, and the emails were sent with months in between. Accordingly, we do not expect that recipients would have realized the emails were related.

4.2. Conclusions

This work helps to inform strategies for increasing policymakers' electronic engagement with SU/SUD research by demonstrating that the benefit of using narratives for this purpose is nuanced. In general, policymakers were more likely to engage with research when the narrative was about the sender, and when the sender's identity appeared to be congruent with the person's background, but not when the sender was the fact sheet author or editor. This work highlights the power of people with lived experience sharing their stories in optimizing policymakers' engagement with SU/SUD research, which is critical for improving the use of rigorous, unbiased scientific research in SU/SUD policies and improving public health outcomes.

Funding

Generous support for this work was provided by the William T. Grant Foundation (grant 200884), the National Institute on Drug Abuse

(R01DA056627), the Eunice Kennedy Shriver National Institute of Child Health and Human Development (grant P50HD089922), the National Science Foundation (grant 2030660), and the following Institutes from the Pennsylvania State University: the Huck Institutes of the Life Sciences, the Social Science Research Institute, and the Consortium for Substance Use and Addiction.

CRediT authorship contribution statement

Jessica Pugel: Writing – review & editing, Investigation, Formal analysis, Data curation. **Riley Loria:** Writing – review & editing, Visualization, Formal analysis. **Elizabeth Long:** Writing – review & editing, Writing – original draft, Methodology, Funding acquisition, Conceptualization. **J. Taylor Scott:** Writing – review & editing, Supervision, Funding acquisition, Conceptualization. **D. Max Crowley:** Supervision, Funding acquisition. **Glenn Sterner:** Resources, Funding acquisition, Conceptualization. **Charleen Hsuan:** Writing – review & editing, Funding acquisition, Conceptualization. **Camille C. Cioffi:** Writing – review & editing, Resources. **Patrick O'Neill:** Writing – review & editing, Data curation.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

We thank Research-to-Policy Collaboration Rapid Response Network researchers and fact sheet authors who authorized us to distribute their work under their names and expertly navigated the responses from policymakers.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.dadr.2024.100299.

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