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Feasibility and fidelity in applying media advocacy principles as an implementation strategy: lessons from the National ROPS Rebate Program expansion

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Abstract

Background To increase tension for change and encourage adoption of policies supporting health and safety practice, media advocacy employs a grassroots approach to raising awareness of issues. Allies and authentic voices are strategically engaged to share messages about social issues and the policies that can remedy them.

Methods Given its success in other areas of public health, this study aims to trial media advocacy as a method of implementing ROPS Rebate Programs in three states with high rates of tractor overturn fatalities. This manuscript focuses on a process evaluation of the media advocacy campaign.

Results This study ultimately demonstrates low fidelity to the principles of media advocacy due to the context within which the study was attempted.

Conclusions Despite these results, this study provides a clearer picture of the contextual issues states face in attempting to adopt and implement agricultural safety and health programs, such as the National ROPS Rebate Program.

Keywords Media advocacy, Implementation, Scale-up, Injury prevention, Social responsibility, Health policy, Tension for change, Agriculture

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Introduction

Tractor overturn fatalities remain the leading cause of death on US farms, with an estimated 125 annually [1]. While rollover protective structures (ROPS) are 99% effective in preventing these fatalities when used with a seatbelt [2], they didn't become standard equipment on tractors until 1985 [3, 4]. Though ROPS can be retrofitted onto these older tractors (which account for nearly half of tractors currently in use on US farms today [5, 6]), farmers face several barriers to installing them, including time to work through the logistics of retrofitting a tractor and cost [7]. Though widely regarded as essential and vitally important to our communities and country, farmers are typically operating within exceedingly low profit margins, making investments in safety particularly challenging [7]. The National ROPS Rebate Program (NRRP) provides farmers with logistical and financial support for installing ROPS. Despite having "National" in its title, financial support is only available in states where rebate funding has been allocated; however, farmers across the country may still take advantage of the logistical support offered through the Program. Unfortunately, despite ample evidence showing the NRRP's life- and cost-savings [8], few states have funded it, leaving thousands of farmers on a years-long waiting list.

In 2016, the Minnesota legislature became the first to pass a bill providing funding to help farmers install rollover protective structures (ROPS) through the NRRP [9], a step prompted by an investigative series exploring an increase in tractor overturn fatalities in a local newspaper [10]. The initial report was largely a grassroots effort led by a local reporter to draw attention to rising agricultural injuries and fatalities in the state as well as the underutilized solutions available, to mitigate those risks [11].

The success in Minnesota introduced the NRRP team to the concept of media advocacy, or the "strategic use of mass media to support community organizing and advance healthy public policy [12]," which is the focus of this current study.

Media advocacy is intended to provide a grassroots method of educating target audiences (e.g. policy makers) about societal issues and, in doing so, increasing tension for change. In order to do this, media advocacy campaigns strategically engage with authentic voices and allies who can help provide meaningful anecdotes to supplement and enhance data. Authentic voices also lend legitimacy to campaigns and media messages, as they have either experienced these issues personally or are seen as subject matter experts. As such, their stories humanize the issue and thus may often be more impactful and motivating to decision makers than other types of data. Media advocacy campaigns utilize values statements, message framing, and asks to uniquely tailor

materials to the appropriate audience in ways that resonate with and motivate them.

In this effort, we sought to use media advocacy as an implementation strategy to bring the NRRP to three high-risk states. By doing so, we aimed to frame tractor overturn injuries and fatalities as a community issue, with the end goal of encouraging target audiences (such as policy makers or private funders) to invest in vital financial support that would ensure farmers access to ROPS through the NRRP. The premise of this being two-fold. First, farmers provide necessary food, jobs, taxes, and other resources to our communities. Second, societal structures (such as milk pricing and farm regulations) often limit farmer incomes and profit, making it difficult to dedicate resources to safety improvements, threatening their viability, productivity, and sustainability. These consequences in turn have the potential to negatively impact communities and food supplies. Thus, media advocacy frames would focus on society's responsibility to invest in farmers' safety so that they can continue to provide for communities.

This manuscript assesses the extent to which the principles of media advocacy, as described above, were applied with fidelity to the NRRP implementation effort, and whether those principles led to media coverage and use of message frames.

Methods

Study region

The current study takes place in a cluster of three states responsible for relatively high proportions of tractor overturn fatalities in the US: Iowa (12%), Missouri (8%), and Kansas (3%) [13]. In order to create the most rigorous study design possible, researchers attempted to identify a cluster of intervention and a cluster of control states that had some geographical separation in order to create a buffer to avoid media coverage from intervention states passing over into control states. The second cluster of four additional states, which accounted for 3–6% of US tractor overturn fatalities, were chosen as control states (these are not included in this process evaluation but will be discussed in future analysis). One state that was already in the process of securing state-based funding (9% of US overturn fatalities) was excluded. During the same time period, overturn fatalities were reported in 22 states, the lowest risk of which accounted for 0.5% of national overturn fatalities) [13]. Northeast Center for Occupational Health and Safety (NEC) researchers, who administer the NRRP, worked with local coordinators within each state in order to carry out this study. NEC researchers provided general information about the NRRP while local coordinators developed strategies based on their knowledge of local agricultural issues and

social networks. Local coordinators also developed and carried out the media advocacy campaigns.

Media advocacy campaign development

NEC researchers and state coordinators participated in a series of trainings relevant to media advocacy theory and methods. Trainings were conducted by Berkeley Media Studies Group (BMSG), a nonprofit organization focused on understanding how media impacts health policy and using this understanding to advocate for improved public health measures or policy initiatives [14]. In addition to a general training, BMSG provided support and feedback as the study team (NEC researchers and local coordinators) developed their media campaigns, including necessary media advocacy components. These components are essential for creating tension for change on issues of public importance through media coverage [12, 15]:

- Message frames [12, 15], which focus on providing context for an issue in ways that encourage engagement and activism on that issue. Frames can function broadly, as part of a wider societal context which encourages activism on a topic from a range of individuals (landscape framing), or narrowly, as a stand-alone issue that can only be addressed by those directly impacted or involved in the issue (portrait framing).
- Values statements [12, 15], which explain why the community should care about an issue and who should be held accountable for addressing it.
- Identification of authentic voices (such as farmers, who have first-hand experience with the issue) and allies (such as farm service organizations) who can promote or carry messages [12, 15].
- Identification of targets [12, 15], such as legislators, foundations or others who can support change, improve policy or initiate other important solutions.
- Strategies [12, 15], which help plan the how, when, and where media advocacy messages will be presented and represented in the media.

At the end of the training and development period, state coordinators prepared a media packet tailored to each of their states. These media packets included the aforementioned components, as well as general information about the NRRP and sample news pieces about the effort. Using the media packets, messaging frames, and general strategies, the NRRP's media advocacy effort focused on supporting each team of local coordinators to promote news media about the NRRP and efforts to implement it within their state (henceforth, these efforts will be referred to as "team activities").

Data collection and analysis

Over the course of the implementation period, July 2022 through July 2024, both team activities and outputs were tracked by NEC researchers. Team activities are defined as efforts the state coordinators engaged in as part of their media advocacy strategies. Outputs are defined as the media that was published as a result of team activities, and the primary outcome of this study. Though momentum toward longer-term outcomes (such as policy change) was created, the relatively short duration of funding for this study meant that it was not possible to assess and report longer-term outcomes. Team activities were tracked to document what the activity was, who was involved, and what physical materials (if any) were shared. Similarly, resulting news media was tracked to document what was published and what activity or event prompted the publication.

Data was collected using Research Data Capture (REDCap) [16]. In addition to collecting relevant materials used as part of each team activity, the REDCap database also tracked the individuals (team members, authentic voices, allies, press) involved, the state team's report on which components of media advocacy were applied, and links between team activities and outputs. These links were identified based on either direct publication of team activities (such as press releases or op eds) or confirmation from the news source about the link. For outputs in particular, details about the news source (location, reach, etc.) were also tracked whenever possible.

Once collected, data was transferred into NVivo14 [17] for analysis. Records were assessed and coded to capture whether or not each component of media advocacy was applied in a specific team activity or the resulting outputs. For instance, the use of authentic voices was coded as a "yes" or "no" for each activity, and framing was assessed based on the use of portrait or landscape frames and how those translated to responsibility for change and actions for preventing tractor overturn fatalities. Initial coding was conducted by the first author and the analysis was reviewed and confirmed with all authors.

The process analysis presented here was designed based on Stead et al.'s description of process evaluations for media advocacy [18]. As defined by Stead et al., this process evaluation served to understand "the extent to which implementation [of media advocacy strategies] was consistent with what was planned and to identify factors influencing implementation [18]." When possible, routinely collected metrics (such as the participation of various partners in NRRP media advocacy efforts) and physical materials used in team activities were assessed for their fidelity to both the principles of media advocacy as well as each states' media advocacy strategy. Published news media was assessed in the same manner.

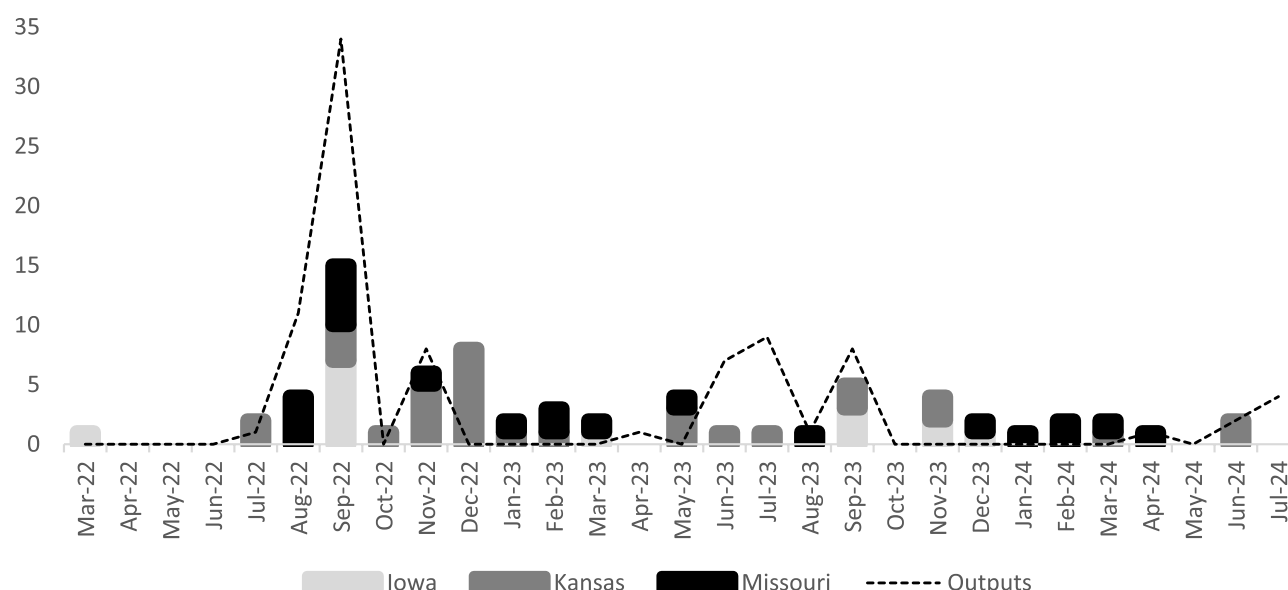


Fig. 1 Team activities by state and month compared to media outputs. Excludes 11 ongoing team activities

Results

Team activities overview

During the implementation period, local coordinators reported a total of 83 activities in their efforts to generate media about the need for NRRP funding: 15 in Iowa, 45 in Kansas, and 23 in Missouri. Activities spanned several categories including: meetings and discussions including direct advocacy that primarily took place in Kansas ($n=29$), outreach events ($n=16$), interviews ($n=11$), press releases ($n=10$), general dissemination of information ($n=7$), press events and lay articles ($n=3$ each), and distribution of media packets and collection of letters of support ($n=2$ each). The largest cluster of activities took place in the first several months of the implementation period and specifically focused around National Farm Safety and Health Week in September, during which state teams felt would be most appropriate to formally launch campaigns (Fig. 1).

To support their campaigns, local coordinators used a variety of data sources provided by NRRP staff. These data and materials were most often distributed in their original form; however, in some cases, local coordinators personalized the materials to their states. Most commonly, these materials included: information about how the NRRP works ($n=28$), NRRP data such as waitlists and closed cases ($n=22$), injury and fatality statistics pertaining to tractor overturns ($n=20$). Local coordinators also distributed peer reviewed publications five times, including a cost analysis of the NRRP. Such materials were distributed in support of a total of 31 team activities, including 11 times each in Iowa and Missouri and 9 times in Kansas. In addition to these standard materials, 12 unique materials developed for the media advocacy

campaigns were distributed as part of 21 team activities. No additional supporting documents, such as meeting notes or interview recordings, were maintained by state teams, although local coordinator meetings were discussed in meetings between NEC researchers and local coordinators.

Authentic voices and allies

Though allies were engaged in media advocacy activities semi-regularly ($n=39$ team activities), authentic voices were noticeably absent from media campaigns, with their engagement documented in just eight activities. Within the 12 unique materials developed by local teams for use in media advocacy campaigns, just seven included allies in media advocacy efforts and one engaged authentic voices who provided personal anecdotes about the importance of supporting the NRRP.

Values, framing, and asks

Only five unique materials that were distributed incorporated the identified values statement of each state's media advocacy campaign. Further, materials primarily applied portrait framing, thus failing to connect the issue of tractor overturns and safety to broader contexts. This missed opportunity was further seen in examining the target audience as well as "who asks" or "who action steps were directed at". Seven of the materials were directed at farmers themselves, and four specifically laid out action steps for farmers to take to protect themselves. Only one of these resources targeted policy makers and the like, calling on them to support the NRRP. Additionally, seven resources did not specifically highlight an ask.

Outputs overview

During the implementation period, 28 unique media reports were published a total of 87 times as a result of team activities. Of these 87 instances, 14 were related to Iowa, 44 were related to Kansas, 22 were related to Missouri, and seven were related to more than one of these states. The news reports were attributed to 21 team activities, including five interviews, 14 press releases or distributed lay publications, an instance of general information dissemination, and distribution of a team's media packet. As shown in Fig. 1, two of the largest spikes in media coverage occurred during September 2022 and September 2023, coinciding with National Farm Safety and Health Week during the third week of the month.

Authentic voices and allies

Although efforts led to a number of media reports, authentic voices and allies were quoted sparingly in resulting media output. Throughout the 28 unique reports, there were only five instances in which authentic voices were quoted and one instance in which an ally was quoted.

Values, framing, and asks

Among the 28 unique outputs, only four referenced state value's statements, with articles generally using portrait framing. While the vast majority of articles target farmers with asks involving safe farming practices or signing up for the NRRP, two articles did stand out. One of these articles did not present a clear ask; however, it did provide a link to the NRRP fundraising website several times, nudging readers to donate themselves. The other of these articles specifically called on community members to put pressure on potential funders to support the NRRP.

"To increase awareness of and support for these rebates, we need to keep farm safety visible in the news, on social media, and in daily conversations. After all, people can't apply for a program or make the case for continued funding if they don't know it exists [19]."

Discussion

While media advocacy has successfully contributed to public health policy changes, its use in the context of this study proved challenging. Though the media was generally receptive to publishing news reports provided by local coordinators, those source materials often minimally applied key principles of media advocacy, including the use of authentic voices, allies, and values statements. Similarly, while asks were often made, they were usually directed downstream at farmers themselves, neglecting the role that society must play in providing

an environment wherein farmers' have access to safety equipment and the ability to work in safe conditions.

Unfortunately, the challenges faced in applying media advocacy principles were in large part due to local contextual factors. Importantly, local coordinators for this effort are employed by universities within their respective states, and each university sets forth its own policies and priorities pertaining to media distribution as well as activities related to advocacy – whether direct or indirect. These organizational policies and priorities were often in conflict with the aims of media advocacy, and resulted in significant barriers to implementation efforts, though the mechanisms for this differed slightly between states.

In Missouri, local coordinators' typical roles were to prioritize education efforts, with strict guidelines against advocacy work. As such, the local coordinators' ability to implement a media advocacy strategy as intended relied on successful engagement of allies and authentic voices. While these partners agreed that improving the safety environment on Missouri farms is paramount, there were different opinions about which issues should be prioritized and how they might be addressed. As a result, finding a clear path forward was difficult based on these differences in opinion. It thus became difficult to chart a clear path forward that was aligned with everyone's interests, while encompassing the media advocacy framework.

Similarly in Kansas, state coordinators were required to work with a university liaison who serves as a conduit for all communications between the university and law makers as well as the university or Extension communications departments. These processes made it more challenging to carry out a media campaign as intended, as these departments had a significant role in determining what content could be distributed, but no involvement in early trainings pertaining to media advocacy strategies. A consultant was able to assist in sharing messages directly with legislators and their staff as well as commodity groups and agribusinesses. As in Missouri, it was difficult to find an ally to prioritize and champion the effort, which could have alleviated some of the burden caused by competing project and university priorities. Additionally, due to the quantity of media put out by the local coordinators at the beginning of the campaign period, the communications departments chose to redirect efforts to other areas as time went on, limiting the reach of the efforts toward the end of the project period.

Within Iowa, the primary challenge faced by local coordinators was demonstrating a sense of urgency and need. Unlike Missouri and Kansas, Iowa had secured a small amount of funding to support ROPS rebate through the NRRP in 2020 and has been able to retrofit more than 80 tractors to date. The existence of an active (yet

insufficiently funded to meet demand) program made it difficult to convey a sense of urgency among leaders to provide additional funding. In media engagements, interviewers often asked about how farmers could sign up for the existing program, rather than why additional funding is needed. This dynamic made it challenging to consistently advocate for designated funding during media interviews, despite nearly 200 farmers waiting for ROPS in the state at this time.

Across the three states, the importance of implementation partners became evident given the considerable barriers state coordinators faced within their own institutions, such as restrictions on media or policy engagement. As in prior efforts to expand support for the NRRP, feedback from communities and allies suggested that there is generalized support for this important program. However, competing priorities among the state coordinators, their institutions and their key partners, as well as policy-makers made engaging implementation partners difficult. It also led to few opportunities to “tell the story.” Though media advocacy was intended to change this environment, getting allies and authentic voices mobilized was hamstrung by these barriers in the states launching advocacy campaigns.

Though it was not feasible to fully integrate media advocacy principles such as value statements, landscape framing, and asks, into the executed strategies, media partners were not averse to publishing content specific to farm safety and ROPS. Additionally, all three states reported increased interest from farmers in the NRRP, despite a general lack of commitment from state policy-makers for ROPS rebate support at the conclusion of the project. This is not an entirely surprising finding given that that formal support has often taken several many years to obtain. Continued collaborations between the NRRP and local coordinators will be key to leveraging new leads to increase overall state support and, ideally, leading to financial commitments.

Limitations

A major limitation to this study is the difficulty in tracking and monitoring team activities that do not involve written materials (e.g. interviews with reporters). As such, nearly three-quarters of team activities could not be assessed for adherence to media advocacy principles beyond what was reported by the state coordinators at the time of the activity. Though it is possible that these activities applied the principles of media advocacy with greater fidelity, it is unlikely that the contextual barriers to disseminating these messages would have been different.

Conclusions

Though media advocacy has been successful in promoting public health initiatives in the past, this study highlighted the challenges of applying media advocacy within highly administrative structures, particularly when there is little power to influence those structures. While a follow-up qualitative study will explore these contexts and dynamics in greater detail, an initial assessment of these settings tells us that, while uncommon, engaging other key allies in early stages of the project, including media advocacy training, may have resulted in different outcomes. In engaging other university departments early, media advocacy strategies would be more likely to align with policies and priorities of the universities, making dissemination a smaller lift. Alternatively, engaging partners or authentic voices with fewer restrictions, such as advocacy groups or non-profits, in the development of media advocacy strategies may have similarly benefited teams by providing a more appropriate and accepted outlet for advocacy work.

Abbreviations

ROPS	Rollover Protective Structures
NRRP	National ROPS Rebate Program
US	United States
NEC	Northeast Center for Occupational Health and Safety
MSG	Berkeley Media Studies Group
REDCap	Research Data Capture

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Authors' contributions

The manuscript was drafted by PJM and reviewed and revised by all other authors. All authors were also involved in carrying out the study and data collection.

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Data availability

Data is provided within the manuscript. For more information, contact the authors.

Declarations

Ethics approval and consent to participate

No human subjects' data was collected or analyzed for this study. This work was reviewed by the Bassett Healthcare Network Institutional Review Board and received a category 2(ii) exemption.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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