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Research Article

Innovations in Community-Engaged Messaging from the Community Engagement Alliance (CEAL) Against Covid-19

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Abstract

The unique circumstances presented by the COVID-19 pandemic led CEAL teams to move beyond conventional health messaging methodologies, and, instead, to provide community-generated messages that maximize the potential to be effective and accepted in the marginalized groups for whom they are intended. In conventional message design, focus groups and surveys provide community input, but message design typically comes from outside the community. Community-engaged message design has the potential to involve, engage, and speak to the experience of those most affected by the identified health concern by creating trust in and encouraging adherence to public health directives and guidelines.

This report describes three innovative message development methods and protocols that derive from community members: crowdsourcing, digital narratives, and boot camp translation. Steps involved in development and implementation in the community-engaged context are described along with applications by CEAL projects. Such messaging generated from within the affected community can enhance trustworthiness, fit, engagement, and acceptance. The promise of developing and implementing messaging this way opens new methods for campaign design and sets an agenda for the next generation of community-based message research.

Keywords: COVID; Community; Campaign; Message design

Introduction

The duration and impact of the COVID-19 pandemic is due, in part, to failures by sources of public health information to communicate effectively about aspects of the pandemic such as masking, testing, clinical trials, and vaccination. This failure has led to confusion about recommendations and a steep decline in trust in public health leadership [1]. Distinguished sources, such as the former head of the National Institutes of Health (NIH), Dr. Francis Collins, have argued that the investment in medical science that led to the development of safe and effective vaccines for COVID-19 has not been matched by the investment in social science and communication research needed to promote extensive, rapid adoption of vaccines across the population [2].

Since the start of the COVID-19 pandemic, there were clear disparities in rates of cases, hospitalizations, deaths, and vaccination with communities of color -- Black, Latino, Native, and Asian communities -- having disproportionately higher cases, hospitalizations, and death rates and lower vaccination rates when compared with White communities. To address this, in Fall of 2021, the NIH, under the direction of NHLBI and NIMHD, created the Community Engagement Alliance (CEAL) Against COVID-19 Disparities, with the charge:

To provide trustworthy, science-based information through active community engagement and outreach to the people hardest-hit by the COVID-19 pandemic, with the goal of building long-lasting partnerships as well as improving diversity and inclusion in our research response to COVID-19 [3].

The unique, high-stakes, and rapidly changing circumstances presented by the pandemic led CEAL teams, in collaboration with their community partners, to move beyond conventional messaging methodologies, and, instead, to provide innovative message development and implementation approaches that promised to be more effective and accepted in marginalized communities.

Conventional Health Communication Campaigns

Conventional approaches to message development for communication campaigns employ a process that includes: (1) targeting a specific behavior or opinion or knowledge domain for change; (2) focusing on specific groups of individuals geographically, demographically, or behaviorally; and (3) ascertaining the underlying concerns of members of the community regarding the targeted behavior through qualitative methods such as focus groups or quantitative methods such as surveys [4]. With this information, message strategies are proposed, often by experts in advertising or marketing, that are believed to advance the positive consequences of engaging in the targeted behavior or of avoiding or minimizing the negative consequences of engaging in the behavior. Depending on resources and the urgency of the health problem, the messages (or message concepts) may be tested in samples from the community of focus to examine acceptability and effectiveness.

Two lessons from this summary should be emphasized. First, in conventional message campaign design, “consultation” rather than collaboration with participants from the communities of focus through surveys or focus groups is the norm. Second, in conventional message design, development and implementation typically come from outside the community even though information driving the message design may come from survey or focus group input from within the community. Although conventional approaches to health communication campaigns have been included in some CEAL messaging efforts, a distinguishing characteristic of CEAL team message development is the explicit and intentional involvement of members of the community. Community-engaged messages may involve, engage, and speak to the experience of those most affected by the focal health concern

because they have the potential to create trust in and, thereby, encourage adherence to public health directives and guidelines. Importantly, the creation of messages themselves goes beyond the standard forms of campaign consultation via interviews, surveys or focus groups deriving the communicative interventions directly from the communities themselves.

This report summarizes and describes some of the innovative messaging initiatives developed or adapted by CEAL teams. We make clear how messaging can emerge from the community of focus, thereby increasing the potential to enhance trustworthiness, fit, engagement, and acceptance. The promise of developing and implementing messaging in collaboration with the community versus conventional methods sets an agenda for the next generation of community-engaged communication research.

In what follows, three innovative message development protocols from among many employed are presented: crowdsourcing, digital narratives, and boot camp translation. Steps in the protocol's implementation in the community-engaged context will be described along with applications by CEAL projects. The demands of the COVID-19 pandemic did not allow empirical evaluation of the innovative message creation protocols, and this remains a next challenge for a community-based research agenda.

Crowdsourcing

Crowdsourcing refers to the process of identifying solution(s) to a problem based on inputs from a large group of individuals. It has been implemented in fields such as marketing, journalism, public policy, and more recently, medical research [5,6]. Crowdsourcing techniques have also been used for public health messaging (e.g., tobacco use and HIV/AIDS among youth) [7,8]. Although it is common to crowdsource community members' feedback on expert-developed messages [9] and to obtain audience members' positive and negative reactions to targeted behaviors, crowdsourcing has infrequently been used to create message content [10]. Successful content creation for public health messages depends on an appropriate understanding of the needs and beliefs of the intended audience. Crowdsourcing techniques involve the audience members themselves in the message-making process.

Crowdsourcing message creation has been implemented through challenge contests, a method with growing relevance in an era of social media [11,12]. Challenge contests typically involve six steps [12]. The first is to assess the fit of a challenge contest to address the public health issue at hand. A steering committee designs the contest and provides overall guidance, such as judging criteria and pricing structure. The oversight committee should be inclusive, with members ranging from public health professionals to community members, and leaders of community-based organizations, but ultimately, the messaging should come from and be implemented within the community of focus.

Community engagement is encouraged by promoting the contest on varied platforms that reach the community including social and legacy media, and through direct community contact such as posting leaflets in community centers [13]. The scale of the contest may vary depending upon the size of the community of focus, ease of contest participation, incentives involved, and success of the promotion efforts. Submissions are generally screened for eligibility and judged to identify finalists or winners.

Some triage may be required to screen out submissions that can be confusing, misleading, or potentially harmful to public health. Judging can involve multiple phases with both experts and non-experts evaluating the submissions on prespecified criteria either through a panel or a crowd-judging process. Following the judging phases, the steering committee, based on the feedback from the judges, finalizes the winners. Then the message is disseminated locally and to the broader community.

Four CEAL teams (Arizona, Florida, North Carolina, and Michigan) used crowdsourcing prominently within their communities to develop and/or receive feedback on message content related to the COVID-19 pandemic. In a rapidly evolving public health crisis like the pandemic, challenge contests can be cost-effective and rapid tools to engage communities, better understand their concerns and inform them about the emerging evidence and guidelines. Community members have submitted creative pieces of work (e.g., poems, paintings, word entries, short stories) on awareness (AZ, MI, and FL), preventive behaviors (MI and AZ), or research (NC) related to COVID-19 and its vaccines. See supplement for examples.

Teams, in collaboration with community-based organizations, promoted the contests on social media, at in-person community activities, during virtual town halls, and within school spaces through youth advisors. The Arizona team's contest "It's Our Turn" targeted youth and young adults ages 14-25. An advisory board comprised of youth and young adults from diverse communities throughout Arizona collaborated. Crowd sourcing participants were given modest incentives (e.g., gift cards) for submitting creative works on Covid-19 messaging. Entries were evaluated and judged by a panel of experts and the broader community. See supplement for examples.

Community engagement was encouraged by providing a platform for community members to interact and share their views and concerns about COVID-19. For example, the Arizona team invited youth advisor members to present their crowd sourcing project at an adolescent health workshop and arranged for artwork to be displayed in prominent public spaces. The North Carolina team conducted town halls to discuss ways to build trust between

researchers and the community.

Crowdsourcing content as a strategy for the development and implementation of public health messages has distinct advantages including identification of community-centered message themes, development of creative content, message styles reflective of and familiar to the community of focus, and a cost-effective means of community engagement both through message creation and message judging. Crowdsourcing can provide an opportunity for critical dialogue and partnership between public health professionals, researchers, community-based organizations, and community members. Crowdsourcing allows community members to be the experts and allows for power sharing that can be beneficial in community-engaged research.

There are also limitations to crowdsourcing message content. Without proper screening, messages created through this process can promote misinformation or can be too confusing. A triaging process that involves community members and professionals can minimize this potential damage, before messages are released to the public for judging. Additionally, community engagement in crowdsourcing can vary by the platform used. For instance, encouraging contest participation via social media can limit participation from those with inadequate access to the internet or those with limited digital literacy. It is important to expand the community engagement platforms to maximize reach.

Reports on reach and participation in the CEAL contests have been encouraging. Crowdsourcing presents a potentially beneficial community engagement strategy to address issues created by the rapidly evolving COVID-19 pandemic while maintaining trust in public health messages. Further research is needed to investigate the extent to which disseminating untested but community-driven public health messages is more or less effective than [14,15] messages derived through conventional routes.

Digital Narratives

Narratives are a part of the daily fabric of human interaction and thought [14]. They invite engagement, even cognitive transportation, when well done. By contrast, expository messaging – such as informational texts -- summarize and describe. They are often more pallid than the more vivid narratives. Narratives generally include the event(s) that one or more characters experience in a particular setting and tension arises between competing forces that create a plot leading to some resolution [16].

Narrative messaging is a standard tool in communication campaigns but, as with most conventional messaging, the design and execution of these narratives is through professional marketing and advertising. Narratives have gained recognition in health research, healthcare education, healthcare intervention, and in health communication [17-20]. When well-crafted, they have the power not only to engage individuals but the potential to change beliefs, attitudes, intentions, and behaviors, making them a promising health messaging method [19-23]. Storytelling became particularly relevant during the COVID-19 crisis [16,21].

With the advent of social media digital narratives create an avenue for obtaining and disseminating narrative health messages [24,25]. One way to maximize the chances that digital narratives are meaningful, culturally appropriate, and relatable to the communities of focus is by collaborating with members of the communities to develop and implement their narratives so that the story's characters, their challenges, and the context of their daily lives are built into each narrative from the beginning.

The Center for Digital Storytelling -- the StoryCenter -- offers an approach to the development of digital narratives [26]. The Center was formed to identify ways of using digital media to encourage the creation and dissemination of personal storytelling. The center holds workshops to train individuals to create their own digital narratives [25]. These workshops can amplify the voices of people who may not otherwise be a part of a dominant narrative in the community. Trainers with a background in arts and experience in digital storytelling help and guide participants to compose a digital story. Participants are encouraged to come to the workshop prepared with a story sketch including any supporting materials (e.g., photos, videos) they would like to include [25].

Seven elements of digital storytelling form the foundation of the workshop: point of view, dramatic questions, emotional content, voice, music, economy, and pacing [27]. Participants develop their stories in both textual and oral forms to reflect their voice and space through which the story evolves. Moderators create a safe space for creators, referred to as a story circle, to share and provide feedback on each other's initial stories. This phase is critical for engaging the participants and stimulating their group's dialogue. This deliberating forum provides insight into how the digital narratives may be received when shared in the community. Participants have the opportunity to learn digital skills such as image-editing and voice-recording. Photos or videos sketch the narrative frame and arc through storyboards. Under the guidance of the trainers, participants combine photos, videos, voice recording, and music and soundtrack using video editing software to a final digital story screened to the group [25].

The New York CEAL team implemented digital storytelling focused on various vulnerable populations in New York City - youth in public housing, communities of South Asian origin, Spanish-speaking residents, and residents with criminal justice involvement. Their work adapted the phases from the StoryCenter to shorten the time between idea and execution by close working relationships with each participant and by relying on trainers for final stages of video production.

Different framings could be used to storyboard digital stories. In episodic framing, an individual's agency is emphasized; in thematic framing the broader context and history are emphasized. For example, an episodic storyline emphasizes the personal "I cannot get childcare because I had to drop out of school to find a job that will enable me to pay for it". Thematic framing focuses on the systemic: "People cannot get childcare because it's prohibitively costly for low-income women, and the system doesn't provide adequate support and funding." By allowing the community narrators to frame their stories, the final videos are more likely to be locally relevant and culturally relatable to community members [28].

Digital storytelling can empower community members to become advocates while also improving their ability to tell compelling stories. The skills can carry over to other contexts influencing the wider community. Digital storytelling is an appealing community engagement tool especially during a dynamic crisis like COVID-19. By taking advantage of social media to share strategically, effective, persuasive, and culturally relevant messages can be widely and quickly disseminated with minimal resources. See supplement for examples.

Developing digital narratives also comes with challenges. While it is ideal to recruit diverse participants from populations disproportionately affected by a public health problem such as COVID-19, there are potential concerns. The risk of triggering emotional trauma as participants prepare and share their stories should not be ignored. Discussing these risks with narrative creators should be an ethical priority [29].

Narrative messaging must also balance the aesthetics of the story with the story's health message. Messaging is maximally effective when an engaging story and its characters are the vehicles for audience engagement while presenting a core health message content that is seamlessly integrated into the story and its characters [29]. By centering around life events, storytelling can intensify emotional engagement with the narrative and have a greater impact than simple factual summaries. Skillful, effective stories weave the two streams – narrative story and core health lessons -- into a coherent whole.

Digital narratives are a promising community engagement tool that leverages multimedia and technology to amplify the voices of the vulnerable while developing culturally and locally relevant messages. Crafting good narratives is always difficult. They must tell a good story but simultaneously allow the story to carry the public health content as the story unfolds. The development of narratives in communication campaigns has typically been generated from elite and institutional sources which, even with the best of intentions, too often are not in a position to capture the resonant stories of those whose interests they seek to serve.

Boot Camp Translation

Translation of research findings into practice can be slow making responsiveness to health crises like the COVID-19 pandemic a challenge. Boot Camp Translation (BCT) is a strategy to rapidly generate health messages from within communities. The method was originally developed by The Community Advisory Council of the High Plains Research Network in Colorado [30,31] and found to be an effective community engagement tool in translating evidence-based care for conditions like colorectal cancer screening, asthma, diabetes, and hypertension [31,32]. In BCT, a team of community members, healthcare providers, and researchers convene to develop (a) better understanding of the science behind a health condition; (b) message content that is culturally relevant and resonates with the community; and (c) dissemination plans for the newly crafted messages.

BCT is usually a 4-to-12-month process that starts with a full-day in-person kick-off meeting followed by a mix of other briefer exchanges. At kick-off, medical experts present evidence-based information on the health condition, followed by an open discussion for community members to share their concerns, and initial brainstorming of the message content. Message content is refined through conference calls and during in-person meetings. A similar process defines the audience and dissemination strategies. Finalization of messaging and dissemination gives priority to comprehensibility by and accessibility to community members [30].

Using the BCT approach, the Colorado CEAL team partnered with community members to create locally relevant messages about COVID-19 vaccination. The traditional BCT process was modified to meet the rapidly changing information needs of the community in the context of COVID-19. Meetings were fewer but more frequent and virtual. These adaptations allowed the campaigns to be designed on a tighter schedule (8 weeks duration) with and for multiple communities (Urban Latinx, Urban Black/African American, Urban American Indian/Alaska Native, Rural Latinx, Rural African immigrant (specifically Somali).

During the Colorado CEAL team's first BCT cycle focusing on COVID-19 vaccination for adults, the message content for each community was distinctive and relevant. For example, the Urban African American team pointed out that to address historical trauma in their communities, it is important to highlight the involvement of Black/African American individuals in COVID-19 vaccine development as doctors and clinical trial participants. The Rural Latinx team emphasized the potential of personal experiences as stories originating from within the community. The Rural African Immigrant/Somali team highlighted the need for medical information about COVID-19 and its prevention to be shared orally in their Somali language.

Dissemination strategies recommended by the BCT teams were culturally relatable. For instance, Urban American Indian/Alaska Native team recommended using imagery of American Indian/Alaska Native women in traditional clothing on t-shirts, posters, etc. The Rural African Immigrant/Somali team recognized the need to disseminate the messages verbally in person-to-person or group settings (e.g., mosque, coffee shops). The Urban Black/African American team members offered scripted videos featuring mothers as the public health messengers for dissemination through social media, at libraries, and in faith-based communities. Spanish and English rack cards combining medical information and personal stories were the chosen method for Rural Latinx team members. The Urban Latinx team also recommended ads to be displayed on buses and bus benches for a wider reach choosing "Si se puede" ("Yes, you can") as the tag line. See supplement for examples.

Message content through BCT can have several advantages, including identification of community-centered themes, avoiding medical jargon, developing creative content and message styles reflective of the community perceptions and cultural preferences. The BCT method can provide an opportunity to utilize the local community's expertise and insight to identify message content that originates in scientifically sound claims and disseminates in culturally appropriate ways. BCT prioritizes the community members as expert content creators. Medical experts lay the scientific foundation initially and then, skilled facilitators guide discussions to achieve products and dissemination plans. The process itself can create trusted partnerships between local clinicians, public health personnel, researchers, community-based organizations, and community members.

The main challenges created by the BCT approach are the substantial time investment expected from all team members and the administrative coordination needed for a successful process. While the flexible structure of BCT can be beneficial during a dynamic health crisis like the COVID-19 pandemic, the shortened duration may be insufficient to build partnerships and have a meaningful impact within the community. The Colorado CEAL team addressed this concern by leveraging existing relationships to enhance community engagement.

While the impact of the modified BCT approach on COVID-19 related behaviors needs to be formally evaluated, the level of community engagement and reach of the developed materials has been encouraging. BCT is an innovative method to source culturally relevant message content and a powerful and flexible tool for community engagement and community-based participatory research [30,33-35].

Conclusion

The prototypical communication campaign obtains information from members of communities of focus in order to ensure that assumptions about what is known, believed, and trusted by group members can guide the choices made in message selection and dissemination. This approach typically does not include the creation of the messages from within the community. Instead, the information generated through focus groups, interviews and surveys is fed to professionals in marketing, public relations, and advertising for messaging guidance. One of the major insights of NIH's CEAL projects included the need to take the next step in message development and implementation to collaborate with those deeply immersed in the lives of their communities.

The three approaches described – crowdsourcing, digital narratives, and Boot Camp Translation – have some similarities and differences. All three approaches are forms of community-based involvement in message creation, wherein the messages come from the creative energies and community experiences of the makers. However, there are clear differences in these three approaches. Crowdsourcing does little or no training while BCT and digital narratives involve training for message creators. The investment in training may slow the development of messaging but provides skills that the trainees can carry forward to other health contexts as well as increasing the "production quality" of the messages generated for dissemination. Similarly, there are differences in the amount and timing of expert involvement. For example, in crowdsourcing triage of potentially problematic messages occurs after message submission but before dissemination. For BCT, interaction between community creators and experts occurs throughout. In digital narrative creation, the expertise is in the development and execution of quality narratives and videos rather than in the science behind the pandemic. The type of expert involvement varies as well from the technical to the scientific. The impact of these differences affects the quality of messages generated in terms of production values but also can slow the generation process so that the relevance of the message in a fast-moving pandemic environment may be reduced.

The major innovation inherent in these three approaches is the explicit involvement of community members in the message creation process. The importance of this component of a community-based communication campaign cannot be understated. Messaging is where the community's needs, experience, and expertise meet public health knowledge.

Whether message interventions generated in collaboration with communities are superior, inferior or no different in effectiveness from those generated by professional message designers requires further rigorous evaluation and testing. Both approaches rely on input from affected communities, but the nature of the input varies significantly with the content and style of the messages generated by community members themselves potentially better tailored to subtleties of experience and culture that define the community

of focus. Even if there is little difference empirically between conventional and community centered approaches to messaging, the advantage in engagement, participation and credibility of community-engaged message development and implementation should be a high priority in public health.

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Supplementary File

Examples of Innovative Messaging

Crowdsourcing

Arizona CEAL

https://nau.edu/cher/adolescent-health-presentations/

Michigan CEAL

https://www.michiganceal.org/gallery

Bootcamp Translation

Colorado CEAL – Rapid Boot Camp/Community Translation; "r- BCT"

https://covid19community.nih.gov/news/community-translation

Digital Storytelling

New York CEAL – Targeting South Asian primary care patients, youth and young adult residents of NYC public housing, NYC residents with history of justice involvement, and Spanish speakers.

https://covid19community.nih.gov/nyc-ceal-digital-storytelling