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# How Right Now/Qué Hacer Ahora: Findings From an Evaluation of a National Mental Health and Coping Campaign Amidst the COVID-19 Pandemic

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Beyond its physical health impact, the COVID-19 pandemic also resulted in grief from loss of loved ones, isolation due to social distancing, stress, fear, and economic distress—all of which impacted mental health. How Right Now/Qué Hacer Ahora (HRN) is an award-winning, national campaign that provides emotional support to people disproportionately affected by COVID-19. We conducted a theory-based, culturally responsive evaluation to assess the campaign's effect on coping behaviors and resiliency between summer 2020 and spring 2021. We surveyed HRN's priority audiences (older adults/caregivers and those with preexisting health conditions, experiencing violence, or economic distress) in English and Spanish using NORC's national probability panel, AmeriSpeak, over three waves. We also analyzed social media data and monitored HRN website traffic and triangulated these data to understand the campaign's full impact. Campaign exposure was associated with people who were experiencing higher levels of stress and were more likely to seek information to support their emotional wellbeing. Campaign exposure was also positively associated with increased feelings of resilience and confidence in using coping strategies, especially for people experiencing violence or economic distress and people from racial and ethnic groups. Findings demonstrate the campaign's success in reaching its intended audiences with the mental health support they needed. Additionally, the HRN evaluation's design illustrates how the use of multiple data sources can elucidate a deeper understanding of campaign impact. Findings underscore that culturally responsive health communication interventions—like HRN—can provide needed mental health support and resources to disproportionately affected communities.

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#### Public Policy Relevance Statement

How Right Now, a theory-driven, culturally responsive, evidence-based mental health communication campaign, was developed at a moment in time when Americans, especially communities of color, were struggling with the new reality of a serious respiratory virus, requests to socially isolate, and mandates for business closures. As a result, quickly accessible, evidence-based, and culturally responsive mental health resources were needed, but not much was available at the time to support these needs. The evaluation findings reported in this article suggest that the campaign may be a valuable resource for communities who have been struggling with access to mental health resources prior to and amid the pandemic. They also suggest that How Right Now and other similar campaigns can be developed and tailored to support the ongoing needs of the communities they seek to serve in order to have a positive impact on people's mental health.

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s COVID-19 spread across the United States, people used social distancing and other mitigation measures to protect individual and community health. These included mask wearing, remaining at home for lengthy periods of time, limiting contact with others, not traveling, working or attending school remotely, and abstaining from in-person hobbies (Burke-Garcia, 2023). The act of doing some of these things resulted in increased reports of mental health (MH) challenges (Burke-Garcia et al., 2021). For example, a Centers for Disease Control and Prevention (CDC) study revealed that the prevalence of self-reported depression (29%) and suicidal ideation (8%) among U.S. adults were higher at this time (in April/May of 2020) than prior to the pandemic (McKnight-Eily et al., 2021). Additionally, Black and Hispanic survey respondents were more likely to report experiencing mental health disorders during this time (Coley & Baum, 2022; Ettman et al., 2020)—and report experiencing them more acutely due to fewer social and economic resources available to historically marginalized communities (Andrasfay & Goldman, 2021; Coley & Baum, 2022; Griffith et al., 2021).

Not all groups experienced the pandemic similarly. Racial/ethnic communities experienced disproportionate rates of COVID-19 morbidity and mortality (Kaiser Family Foundation, 2022) and mental health challenges (McKnight-Eily et al., 2021), along with other socioeconomic inequities (Thomeer et al., 2023). Additionally, groups such as older adults, their caregivers, those with preexisting physical and mental health conditions, and those experiencing violence or economic distress were at higher risk for mental health challenges (Burke-Garcia et al., 2021).

In response to these inequities, the CDC Foundation, in partnership with the CDC and under the leadership of NORC at the University of Chicago (NORC), developed the *How Right Now/Qué Hacer Ahora* (HRN) campaign. Guided by "The Emotional Health Resiliency and Thriving Conceptual Model" (Burke-Garcia et al., 2023), HRN aimed to support coping and resilience among these audiences (specifically, older adults, caregivers, those with preexisting medical conditions, and those experiencing violence or economic distress) amid the pandemic. The model built on the CDC's definition of emotional well-being ("judging life positively and feeling good") by focusing on resilience and thriving as key to mental health in the context of COVID-19 and its negative impacts (e.g., disease, economic shutdowns, social isolation; Centers

for Disease Control and Prevention, 2018; Diener et al., 1997; Veenhoven, 2008). As such, the model delineated how adverse events (including experiences with discrimination and racism), self-efficacy, risk appraisal, stress, coping, and support, among others, shaped resilience and thriving in a context where social determinants affect health.

The public health emergency was a dynamic period, characterized by continuous change and uncertainty. The public health field acted rapidly to provide actionable guidance about mask wearing, social distancing, and, later, about testing and vaccinations. Under lockdown and quarantine, members of the public were separated from their families, struggled with an uncertain economy, and shifted to remote technologies for work and school. The medical field increased its use of telemedicine, shifted its focus to mental health, and struggled to accommodate workforce burnout and compassion fatigue. Throughout this period, HRN sought to deliver easy to access mental health resources and messages about how to increase emotional well-being (University of Alabama, 2022).

Rapid, mixed-methods culturally responsive formative research (Frierson et al., 2010; Milstein & Wetterhall, 1999; Wholey et al., 2010) guided the development and implementation of HRN. A broad array of partners who worked with HRN's priority audiences were identified early on and engaged to participate as part of the formative research to provide insights from their communities and provide feedback on the campaign's messages and materials (notably, these were also closely involved in the development of the campaign and its evolution over time). NORC conducted formative research in English and Spanish to explore U.S. audiences' mental health experiences and resilience during COVID-19 (Burke-Garcia et al., 2021). As a result, the campaign, which launched on August 5, 2020, offers evidence-based, audience-centric messages that reflect people's real experiences, addressing them in actionable and visually appealing ways. Resources include an easy-to-use website (https://www.cdc.gov/howrightnow) and culturally relevant digital and printable materials in English and Spanish. To effectively reach its audiences, the campaign leveraged a mix of trusted organizational partners (e.g., National Alliance on Mental Illness), individual

<sup>&</sup>lt;sup>1</sup> The *How Right Now/Que Hacer Ahora* websites have been updated and changed since the time of this evaluation; therefore, what was evaluated is not currently available online anymore.

champions (e.g., Omari Hardwick), and digital and radio media buys. To further ensure the cultural appropriateness of the campaign outreach, partners were provided with campaign messages but given leeway to adapt them as appropriate for audiences, subject to review and approval. As the campaign evolved, the evaluators worked closely with the campaign team to monitor and communicate emerging information needs, resulting in a feedback loop between the communications team and the evaluation team.

#### **Aims**

The evaluation of the HRN campaign sought to understand the extent of campaign exposure, attitudes toward HRN messages, the association between campaign exposure and information-seeking behaviors, and the impact of the campaign on HRN audiences' ability to cope and be resilient during COVID-19. HRN's logic model guided the development of the campaign and served as the foundation for the evaluation (Figure 1). This article describes the

methods and results of this national campaign evaluation, as well as implications for policy and practice.

#### **Evaluation Questions**

This study identified four key evaluation questions (EQ):

Evaluation Question 1 (EQ1): Which audiences were exposed to HRN messages?

Evaluation Question 2 (EQ2): What were audiences' attitudes about HRN messages?

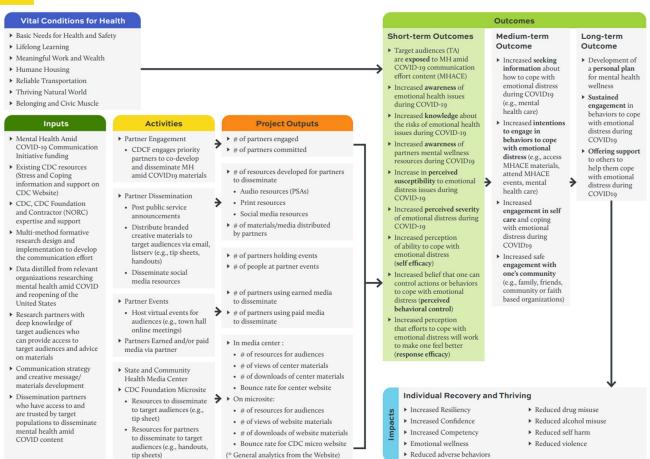
Evaluation Question 3 (EQ3): To what extent is campaign exposure to HRN associated with audiences' information-seeking behaviors?

Evaluation Question 4a (EQ4a): To what extent is campaign exposure to HRN associated with audiences' coping behaviors?

Figure 1
Campaign Logic Model



#### Emotional Health Resiliency and Thriving Amid COVID-19 Communication Initiative



*Note.* # = number; CDC = Centers for Disease Control and Prevention; CDCF = CDC Foundation; MH = mental health; PSA = public service announcement; MHACE = MH amid COVID-19 Communication effort. See the online article for the color version of this figure.

Evaluation Question 4b (EQ4b): To what extent is campaign exposure to HRN associated with audiences' ability to be resilient?

#### Method

NORC conducted the evaluation from July 27, 2020, to May 31, 2021, collecting data in both English and Spanish from multiple sources: three national surveys, social media data, and website analytics. NORC's Institutional Review Board reviewed and approved the study's procedures and protocols and determined it exempt under 45 Code of Federal Regulations 46 102(1) by CDC.

#### **Data Sources**

**National Surveys.** Using AmeriSpeak (NORC's nationally representative probability panel of more than 30,000 U.S. households), a nationally representative sample of Americans participated in three waves of online surveys: August 28–30, 2020 (n=858); October 23–25, 2020 (n=719); and May 26–June 1, 2021 (n=712). The surveys were fielded at multiple periods as part of the campaign evaluation in order to monitor target audiences' well-being and obtain feedback to campaign messages over the course of the pandemic. The August 2020 survey was fielded 2 months at campaign launch, the October 2020 survey was fielded 2 months after launch, and the May 2021 survey was fielded later in the pandemic in order to address evolving campaign messages.

The study team cleaned and weighted the survey data to U.S. Census Bureau benchmarks, balanced by sex, age, education, race/ ethnicity, and geographic region, adjusting to HRN's audience totals for the final study weights. We calculated statistical weights for the study's eligible respondents using panel base sampling weights to start, computed as the inverse probability of selection from the NORC National Frame (NORC at the University of Chicago, 2010). We raked panel weights to external population totals associated with age, sex, education, race/ethnicity, housing tenure, telephone status, and Census Division, obtained from the Current Population Survey (United States Census Bureau, 2022), and adjusted to the external population totals to develop the final panel weights. We derived study-specific base sampling weights using a combination of the final panel weight and the probability of selection associated with the sampled panel member. We also adjusted for screener nonresponse, which decreased the nonresponse bias.

At the final stage of weighting, we trimmed extreme weights based on a criterion of minimizing the mean squared error associated with key survey estimates and reraked weights to the population totals, such that the weighted demographic distribution of the survey completed resembled the demographic distribution in HRN's audience groups.

**Social Media Data.** Social media data comprised two parts: social media listening and tracking of social media advertising. For the former, we collected social media data from Twitter using Talkwalker (Talkwalker, 2023) and from Facebook, Instagram, and Reddit using CrowdTangle (CrowdTangle, 2023). Using search terms that included audience-specific, mental health, and COVID-19-related words and phrases (see Supplemental Material), we conducted social media listening to gain an understanding of the public conversations that were happening about people's mental health experiences during the pandemic. We retrieved and analyzed more

than 272 million relevant social media posts between July 27, 2020, and May 24, 2021. For the latter, we used Facebook Insights (Meta, 2023) and Instagram's Ad Manager (Instagram, 2023) tool to track social media advertising that featured HRN messages in both English and Spanish and ran from November 9, 2020, to May 31, 2021.

**Website Data.** We collected and analyzed Google Analytics metrics (e.g., number of page views/users, resources frequently visited; Google, 2023) from both the English and Spanish-language websites to track and understand audience engagement with the HRN website from the launch of the campaign on August 5, 2020, through the end of the evaluation period on May 31, 2021.

#### Measures

The survey instrument (see Supplemental Material for the instrument and tested messages) included questions to assess COVID-19related experiences and stressors ("Which of the following are you experiencing during the COVID-19 pandemic?") and coping strategies ("Which of the following activities are you doing to cope with the COVID-19 pandemic?"). To understand audiences' experiences during the pandemic and the impact of campaign efforts, respondents first self-reported into at least one of the campaign's audience groups and then responded to a series of questions that assessed the following: (a) their mental health experiences during the pandemic, (b) what HRN messages and materials they were exposed to, (c) their attitudes toward the campaign's messages, (d) to what extent audiences' information seeking was associated with campaign exposure, and (e) to what extent coping behaviors and perceptions of resilience changed with message exposure.

**Campaign Exposure.** Campaign exposure was measured using aided recall. Survey respondents were shown a screenshot from the HRN homepage and two posts containing messages about mental health and well-being that had been used by the campaign on social media. For each, respondents were asked "Have you seen a message like this in the past two months?" Respondents were categorized as "exposed" to the campaign if they reported that they had seen or probably seen the HRN website or message in the past 2 months (on the August 2020 survey) or in the past 6 months (October 2020 and May 2021 surveys). See Supplemental Materials for messages that were tested.

**Information Seeking.** To assess information-seeking behavior, participants were asked the following yes/no question: "Have you tried to find any information or resources to support your emotional health well-being during the COVID-19 pandemic (such as crisis information, therapy, treatment for mental health or substance abuse, coping strategies)?"

**Stress.** Participants were asked two questions to assess how much the COVID-19 pandemic had changed their life. The first item asked about "Overall experiences of stress related to the COVID-19 pandemic" according to a 4-point severity scale: none, mild, moderate, and severe. The latter options provided examples of symptoms to anchor respondents, such as "Mild. Occasional worries and/or minor stress-related symptoms (such as feeling a little

anxious, sad, and/or angry; mild/rare trouble sleeping)." The second item asked about "Stress and discord in the family" using a similar 4-point severity scale. Examples of symptoms were also provided for this item, such as "Mild. Family members occasionally short-tempered with one another; no physical violence."

Attitudes to Messages. After viewing each message, participants were asked a series of questions to assess their attitudes toward the message. All items used a 5-point Likert scale ranging from strongly disagree to strongly agree. Items included the following: "This message is believable," "This message is telling me something new," "This message is attention grabbing," "This message is worth remembering," "This message is relevant to people like me," "This message is meaningful to people like me," "This message is clear (or understandable)," "This message is informative," "This message motivates me to 'bounce back' from hard times," "This message persuades me to take actionable steps to cope with emotional distress during COVID-19," "This message motivates me too seek resources to take care of my emotional wellbeing," and "This message motivates me to share How Right Now campaign information with other people." These items were adapted from McGuire's model of persuasion in communication campaigns (McGuire, 1989).

**Message Exposure.** In the May 2021 survey, prior to viewing the campaign homepage and messages, participants were asked a set of questions related to their coping strategies and resilience (below). After viewing the messages, participants were reasked these questions to assess if seeing the campaign messages had prompted any change in their responses. Message exposure, therefore, refers to the messages that survey participants viewed while taking the survey.

**Coping Strategies.** Before and after viewing the messages, participants rated their attitudes on the following measures related to coping ("I have been able to cope with the COVID-19 pandemic by ..."). All items used a 5-point Likert scale ranging from *strongly agree* to *strongly disagree*. Items included the following: "Focusing on the areas of my life that I can control," "Knowing that I have the ability to get through," "Using strategies to take care of my physical and emotional health," "Feeling confident I can get through," "Supporting and giving back to my community and people around me," "Being supported by my community and people around me," and "Understanding that these are tough times and it's OK to not be OK."

**Resilience.** We measured resilience using items adapted from the Connor Davidson Resilience Scale (Connor & Davidson, 2003). Before and after viewing the messages, participants rated their confidence on the following items pertaining to resilience ("When thinking about yourself during the COVID-19 pandemic, how confident are you about each of the following"). The items used a 4-point scale ranging from *a lot of confidence* to *no confidence*. Items included the following: "I will bounce back quickly from these hard times," "I will have a hard time making it through these stressful events," "It will not take me long to recover from these stressful events," "It will be hard for me to snap back if something bad happens," and "It will take a long time to get over setbacks in my life."

#### **Analysis**

We triangulated data from multiple data sources to answer our evaluation questions (NORC at the University of Chicago, 2023). We modeled this analysis on NORC's approach for evaluating health communication campaigns in today's media environment (Figure 2).

We used survey data to answer EQ1 and EQ4b; survey and social media data to answer EQ2 and 4a; and survey, social media, and website data to answer EQ3. We describe our analytical process and report statistically significant findings below. All survey data from this evaluation can be found in the publicly available data sets at https://www.norc.org/research/projects/how-right-now-que-hacerahora.html.

**Survey Data (EQ1, EQ2, EQ3, EQ4a, EQ4b).** We used Statistical Analysis System Version 9.4 (Statistical Analysis System Institute, Cary, North Carolina) to analyze the survey data. We used PROC FREQ with the CHISQ option for chi-square distribution testing. Utilizing weighted and merged survey data, we assessed for significant differences between audience and race/ethnicity groups through bivariate chi-square distribution tests with significance determined at p < .05. We used chi-square results to detect significant differences between groups for campaign exposure to and receptivity toward HRN messages, stress, discord in the family, information-seeking behavior, and coping behaviors and resilience.

To further evaluate the relationship between HRN campaign exposure and information-seeking behavior, stress, and discord in the family, we conducted logistic regression models using PROC LOGISTIC. We completed variable selection for inclusion in the logistic models a priori based on reviews of the existing literature, partner feedback, and responses to campaign messages. Covariates controlled for included audience type; core demographics including race/ethnicity, sex, income, and education level; and a location variable to account for the pandemic's disparate impact on different parts of the United States. We coded membership as binary  $(1 = membership in \ a \ specific \ group \ and \ 0 = not \ a \ member)$ . Respondents could be coded into more than one group, which allowed us to control for group membership while representing the myriad of groups they fell into. We intentionally excluded age due to assumed collinearity with the 65 years or older audience.

To measure whether any increases in coping skills and resiliency were prompted by HRN messages, survey items pertaining to coping skills and resilience were asked twice in the May 2021 survey—before and after participants viewed HRN messages within the survey. We estimated message exposure effects by assessing individual-level changes in responses between the before and after measures (e.g., change toward more agreement, change toward less agreement). In this article, "change" in outcomes refers to in-survey message exposure while "association" between outcomes refers to differences between respondents who reported campaign exposure.

**Social Media Data (EQ2, EQ3, EQ4a).** We first cleaned the social media listening data and then analyzed each platform's data set quantitatively and qualitatively using both unsupervised machine learning techniques (e.g., through iterative improvement of search strings, topic modeling [Albalawi et al., 2020; Lim et al., 2017] to explore and identify relevant content in both English and

Generalizable **Prevalence Estimates** Community-level Data Social Media Data Partner Data that provide both Qual & Quant Data Health Generalizable Communication **Prevalence Estimates** Campaign Survey Data Evaluation Sources Owned Media (website, **Expert Reviews** of social media) Data Focus Groups Qualitative Paid Media Data In-depth Interviews Data Other Digital Data Data Triangulation

Figure 2

NORC's Approach to Evaluating Communication Campaigns in Today's Media Environment

Note. See the online article for the color version of this figure.

Spanish languages) and human coding (monthly rapid thematic analyses; Burke-Garcia et al., 2021) to identify top-performing content and themes related to the campaign and mental health experiences during COVID-19 (see Supplemental Materials for a list of search terms that were used for social listening). We used both inductive (leveraging key themes in the literature; Burke-Garcia et al., 2021) and deductive (examining content for natural emerging themes) content analyses. For the social media advertising data, we analyzed ad performance data (e.g., engagements, comments) from Facebook and Instagram to understand how many people were exposed to the messages and their reactions to them.

**Website Data (EQ3).** We analyzed web metrics from Google to understand patterns in traffic to the HRN website over the evaluation period, including identifying sources of traffic and resources or webpages accessed. We used Urchin Tracking Module codes (bits of code attached to the end of a URL; Hubspot, 2022) to understand the impact of any paid ads, partner posts, and influencer/celebrity posts that ran during this time on web traffic.

#### **Results**

#### **Survey Participants**

A total of 2,289 respondents across all three survey waves were included in the analysis. Most reported they had a preexisting physical or mental health condition (57%), about one third reported

they were experiencing economic distress (32%) or were 65+ years old (31%), 13% reported they were a caregiver of someone 65+ years old, and 12% reported they were experiencing violence. Non-Hispanic (NH) Black respondents made up 21% of those experiencing violence and 20% of those experiencing economic distress (compared to 14% overall), and Hispanic respondents made up 20% and 24% of those groups, respectively (compared to 17% overall). Audiences reporting the highest levels of stress and discord in the family were people experiencing economic distress (OR = 3.24, 95% CI [2.33, 4.51]; OR = 3.50, 95% CI [2.69, 4.55]) and people experiencing violence (OR = 2.36, 95% CI [1.55, 3.58]; OR = 2.53, 95% CI [1.82, 3.52]). See Table 1 for the sample characteristics<sup>2</sup> and Table 2 for the ORs related to experiences of stress.

## **EQ1:** Which Audiences Were Exposed to HRN Messages?

Approximately one in four individuals reported being exposed to HRN messages or similar messages during the study period (24% overall, 25% in August 2020, 26% in October 2020, and 21% in May 2021). Chi-square testing revealed that messaging exposure was significantly more common among people experiencing economic distress (28%) and NH Black respondents (31%) and

<sup>&</sup>lt;sup>2</sup> All survey data from the HRN campaign evaluations are publicly available and can be found at https://www.norc.org/research/projects/how-right-now-que-hacer-ahora.html.

 Table 1

 Survey Sample Demographics and Audience Membership

Demographic of priority audience in the survey	Overall		Caregiver		Health condition		Experiencing violence		Economic distress		Adult aged 65 or older	
	$N^{a}$	%	N	%	N	%	N	%	N	%	N	%
Overall	2,289	100	305.96	13	1312.30	57	277.60	12	724.44	32	717.26	31
Age												
18–34	615.44	27	61.48	20	296.25	23	137.83	50	313.77	43	0	0
35–54	599.31	26	95.79	31	372.02	28	79.27	29	243.02	34	0	0
55–64	356.98	16	76.769	25	257.80	20	40.28	15	107.85	15	0	0
65+	717.26	31	71.92	24	386.23	29	20.22	7	59.80	8	717.26	100
Race/ethnicity												
Non-Hispanic White	1404.88	61	166.2	54	903.49	69	150.06	54	324.46	45	537.92	75
Non-Hispanic Black	324.79	14	53.47	17	151.62	12	58.44	21	147.75	20	78.56	11
Hispanic	389.74	17	66.26	22	174.71	13	55.57	20	176.18	24	60.54	8
Other	169.59	7	20.02	7	82.47	6	13.53	5	76.05	10	40.25	6
Sex												
Male	996.43	44	102.45	33	563.73	43	107.29	39	323.44	45	324.67	45
Female	1292.57	56	203.51	67	748.57	57	170.30	61	401.00	55	392.59	55
Income												
Less than \$5,000–19,999	372.89	16	45.21	15	189.47	14	70.94	26	206.50	29	56.64	8
\$20,000-39,999	538.35	24	56.44	18	271.65	21	71.08	26	234.28	32	155.81	22
\$40,000–99,999	975.79	43	143.12	47	599.81	46	97.38	35	237.38	33	356.86	50
\$100,000 or more	401.98	18	61.19	20	251.36	19	38.21	14	46.28	6	147.95	21
Education												
High school diploma or less	922.39	40	101.53	33	491.29	37	117.34	42	387.40	53	214.95	30
Some college or technical school	667.60	29	100.66	33	382.84	29	95.39	34	200.03	28	222.27	31
Bachelor's degree or higher	699.01	31	103.76	34	438.17	33	64.86	23	137.02	19	280.05	39
Region												
Northeast	395.42	17	48.95	16	248.63	19	34.65	12	93.13	13	147.62	21
Midwest	439.42	19	49.90	16	286.57	22	53.45	19	127.07	18	130.60	18
South	914.20	40	130.02	42	494.06	38	106.48	38	314.63	43	282.84	39
West	539.97	24	305.96	100	283.04	22	83.02	30	189.62	26	156.21	22

Note. Audience group membership is not a unique count as respondents could self-identify into as many audience groups as they reported applied to them.

lower among adults over the age of 65 (18%) and NH White respondents (20%) compared to others not in these groups (Table 3).

Additionally, we identified strong positive relationships through logistic regression between campaign exposure and both stress (OR = 1.87) and discord in the family (OR = 1.54), indicating that the people who demonstrated the highest levels of mental health need (as measured by stress and family discord) were also those who were more likely to have been exposed to HRN or similar messages (Table 2).

## EQ2: What Were Audiences' Attitudes About the Messages?

Overall, respondents perceived the HRN messages as believable and worth remembering. Attitudes toward the campaign website upon viewing screenshots in the survey were more favorable among people experiencing violence and economic distress, as well as people from some racial/ethnic groups. People experiencing violence were more likely to find the website believable (53% vs. 37%, p = .0007), informative (55% vs. 45%, p = .0453), and relevant to people like them (43% vs. 30%, p = .0052) than respondents who were not experiencing violence. Similarly, people experiencing economic distress were more likely to find the website believable (43% vs. 36%,

p=.0391), attention-grabbing (46% vs. 34%, p=.0003), telling them something new (34% vs. 19%, p<.0001), informative (54% vs. 42%, p=.0008), and relevant to people like them (41% vs. 27%, p<.0001) than those who were not experiencing economic distress. NH Black respondents were more likely to find the website attention-grabbing (48% vs. 36%, p=.0085), telling them something new (47% vs. 20%, p<.0001), and relevant to people like them (45% vs. 29%, p=.0003) than respondents who were not NH Black. Finally, Hispanic respondents were more likely to find the website believable (49% vs. 36%, p=.0009), attention-grabbing (49% vs. 35%, p=.0004), and relevant to people like them (43% vs. 29%, p=.0004) than respondents who were not Hispanic.

Analysis of survey and social media data revealed additional insights into message receptivity. Specifically, HRN's best rated messages had what we discovered during the course of the evaluation and called "a 1–2 punch," that is, they acknowledged an individual's current need(s) and offered actionable coping strategies. For example, survey respondents rated the message "Even when we're feeling low, there are people or things in life to be grateful for" (see Supplemental Material) highest on believability (78%), relevance (66%), and "worth remembering" (65%). This message also received the highest level of engagement on social media (compared to other HRN messages).

<sup>&</sup>lt;sup>a</sup> All Ns reflect weighted totals. Data is aggregated from the August 2020, October 2020, and May 2021 surveys.

**Table 2**Odd Ratios and 95% Confidence Intervals of Logistic Regression Analysis Examining Information Seeking and Stress (Overall Stress and Family Stress) by Campaign Exposure, Audience Membership, and Demographics

Audience survey demographic and comparison group	Information seeking OR [95% CI]	Overall experience of stress <i>OR</i> [95% CI]	Stress and discord in the family <i>OR</i> [95% CI]
Campaign exposure			
Exposure to HRN or similar messaging in past 2 months	2.35 [1.86, 2.97]	1.87 [1.41, 2.48]	1.54 [1.23, 1.92]
Audience groups <sup>a</sup>			
Caregiver to adult aged 65 or older	0.99 [0.70, 1.38]	2.04 [1.42, 2.93]	1.77 [1.32, 2.38]
Preexisting mental or physical health condition	1.62 [1.26, 2.08]	2.49 [1.92, 3.22]	1.62 [1.30, 2.02]
Currently experiencing violence	1.69 [1.26, 2.28]	2.36 [1.55, 3.58]	2.53 [1.82, 3.52]
Currently experiencing economic distress	2.00 [1.54, 2.60]	3.24 [2.33, 4.51]	3.50 [2.69, 4.55]
Adult aged 65 or older	0.35 [0.25, 0.48]	0.66 [0.51, 0.86]	0.42 [0.34, 0.52]
Race/ethnicity			
Non-Hispanic Black (compared to non-Hispanic White)	1.89 [1.39, 2.58]	0.53 [0.39, 0.72]	0.63 [0.48, 0.84]
Hispanic (compared to non-Hispanic White)	1.43 [1.06, 1.92]	0.76 [0.55, 1.04]	0.95 [0.73, 1.25]
Other (compared to non-Hispanic White)	1.04 [0.68, 1.59]	1.35 [0.83, 2.20]	0.95 [0.66, 1.39]
Sex			
Female (compared to male)	1.31 [1.05, 1.65]	1.60 [1.29, 1.98]	0.95 [0.79, 1.15]
Income			
Less than \$5,000–19,999 (compared to \$100,000+)	0.90 [0.60, 1.35]	0.91 [0.60, 1.39]	0.87 [0.61, 1.24]
\$20,000–39,999 (compared to \$100,000+)	0.83 [0.56, 1.21]	0.94 [0.65, 1.36]	0.73 [0.53, 0.99]
\$40,000–99,999 (compared to \$100,000+)	0.92 [0.66, 1.27]	0.66 [0.48, 0.90]	0.65 [0.50, 0.84]
Education			
High school diploma or less (compared to bachelor's degree or higher)	0.92 [0.69, 1.23]	0.63 [0.47, 0.83]	0.73 [0.57, 0.93]
Some college or technical school (compared to bachelor's	0.86 [0.64, 1.16]	0.71 [0.53, 0.95]	0.79 [0.62, 1.01]
degree or higher)			
Region	0.00 [0.62 1.20]	1.04.50.72. 1.401	1.00 [0.74, 1.26]
South (compared to Northeast)	0.90 [0.62, 1.30]	1.04 [0.73, 1.49]	1.00 [0.74, 1.36]
West (compared to Northeast)	0.94 [0.68, 1.30]	0.82 [0.60, 1.11]	0.82 [0.63, 1.07]
Midwest (compared to Northeast)	1.07 [0.75, 1.53]	1.02 [0.72, 1.45]	0.88 [0.65, 1.18]

Note. Values in boldface represent the confidence intervals for odds ratio estimates that do not include 1.0. Data is aggregated from the August 2020, October 2020, and May 2021 surveys. CI = confidence interval; HRN = How Right Now/Qué Hacer Ahora.

## EQ3: To What Extent Is Campaign Exposure to HRN Associated With Information-Seeking Behaviors?

Chi-square testing (p < .0001) and logistic regression (OR = 2.35, 95% CI [1.86, 2.97]) revealed a strong positive association between campaign exposure and seeking information to support mental health (Table 2), with more than one fifth of respondents (20.29%) reporting doing so. Across all groups, information-seeking behaviors increased over time from August 2020 (17.42%) to October 2020 (19.57%) and were at their highest in May 2021 (24.52%).

People with preexisting physical/mental health conditions (OR = 1.62, 95% CI [1.26, 2.08]), experiencing violence (OR = 1.69, 95% CI [1.26, 2.28]), or experiencing economic distress (OR = 2.00, 95% CI [1.54, 2.60]) were more likely to report information seeking to support their mental health. Compared to NH White respondents, NH Black (OR = 1.89, 95% CI [1.39, 2.58]) and Hispanic (OR = 1.43, 95% CI [1.06, 1.92]) respondents were also more likely to report information seeking.

Assessment of website and social media data further expanded the study team's understanding of people's information-seeking behaviors to support their mental health needs. For example, in examining Twitter data, the most common emotions expressed during the study period related to COVID-19 and mental health were "sadness" in English and "miedo (fear)" in Spanish. When we looked at the website resources that were accessed during this same

time, the analytics data matched the emotions expressed in social media—when asked on the How Right Now homepage "Truthfully, how are you feeling today?" (see Supplemental Materials for screenshot), the most frequently clicked emotions on the English website were "Grieving" (22,042 clicks), "Stressed" (16,824 clicks), and "Lonely" (12,349 clicks). Correspondingly, the most frequently accessed resources on the English language were fact sheets "Coping with Grief" (7,343 clicks), "Coping with Loss-One Step at a Time" (an American Association or Retired Persons resource, 3,751 clicks), and "How to Talk about Mental Health" (3,183 clicks). In contrast, the most frequently clicked emotions on the Spanish website were "Siento miedo (afraid)" (13,255 clicks), "No sé que siento (not sure)" (9,574 clicks), and "Siento estrés (stressed)" (8,468). The most frequently accessed resources on the Spanish language website were fact sheets "Conversar es importante en estos momentos (Talking is important right now)" (3,017 clicks), "Sobrellevando el miedo (Coping with Fear)" (2,351 clicks), and "Sobrellevando la tristeza (Coping with Sadness)" (1,373 clicks).

## EQ4a: To What Extent Is Campaign Exposure to HRN Associated With Coping Behaviors?

Findings revealed increases in respondents' confidence in their use of coping strategies (18%), across all groups, after viewing HRN messaging. People experiencing violence and economic distress and

<sup>&</sup>lt;sup>a</sup> Audience groups are not mutually exclusive. Respondents could identify in more than one group.

**Table 3**Campaign Exposure to HRN or Similar Messaging by Priority Audience and Race/Ethnicity

Audience survey demographic group	Weighted percent exposed	$\chi^2 p$ value <sup>a</sup>
Overall	23.88%	_
Audience groups <sup>b</sup>		
Caregiver to adult aged 65 or older	24.14%	.91
Preexisting mental or physical health condition	23.84%	.95
Currently experiencing violence	27.32%	.15
Currently experiencing economic distress	27.53%	.01
Adult aged 65 or older	17.66%	<.0001
Race/ethnicity <sup>c</sup>		
Non-Hispanic White	20.27%	<.0001
Non-Hispanic Black	30.50%	.00
Hispanic	26.47%	.19

*Note.* Bolded values represent *p* values that are statistically significant at .05 level or less. Campaign exposure is measured as audience survey respondents who reported having seen the *How Right Now* campaign or similar messages in the past 2 months (August 2020 survey) or in the past 6 months (October 2020/May 2021 survey). HRN = *How Right Now/Qué Hacer Ahora*.

NH Black respondents were more likely than those not in these groups to report that they would use coping strategies to support their physical and mental health (30%, 26%, and 25%, respectively; p < .05; Table 4).

In particular, we observed increases in community engagement as a coping strategy following message exposure (to the "Feeling Low" message). Findings revealed increased confidence in respondents' ability to engage in their community—for all groups (21%). However, people experiencing economic distress and NH Black respondents had the greatest positive shifts in willingness to support and give back to their community after viewing HRN messages (31% and 35%, respectively; p < .05).

**Table 4**Increased Feelings of Resilience and Confidence in Using Coping Strategies After Viewing HRN Messages by Priority Audience and Race/Ethnicity

Audience survey demographic	% increase after viewing HRN messages in the audience survey	$\chi^2 p$ value of group comparison <sup>a</sup>
Coping: using strategies to care for their physic	cal and mental health (% increase in agreement)	
Overall	17.60%	
People experiencing violence	30.00%	p = .0003
People experiencing economic distress	26.02%	p = .0006
Non-Hispanic Black	24.50%	p = .0467
People with preexisting health conditions	20.15%	p = .0280
Caregivers of adults over 65	10.31%	p = .0445
Non-Hispanic White	13.78%	p = .0004
People 65 or older	6.47%	p < .0001
Coping: supporting and giving back to commu	nity (% increase in agreement)	·
Overall	21.37%	
Non-Hispanic Black	34.55%	p = .0002
People experiencing economic distress	30.64%	p = .0005
Resilience: confidence in bouncing back from l	nard times (% increase in confidence)	· ·
Overall	15.15%	
People experiencing economic distress	25.69%	p < .0001
People experiencing violence	25.62%	p = .0013
Hispanic	21.66%	p = .0437
Non-Hispanic Black	19.88%	p = .0437
People with preexisting health conditions	12.85%	p = .0358

*Note.* Results presented in this table represent only items that showed statistically significant increases. Subgroup differences shown in this table are restricted to those that showed statistical significance. The full survey inclusive of all items is available as a Supplemental Material. Data is from the May 2021 survey only. HRN = How Right Now/Oué Hacer Ahora.

<sup>&</sup>lt;sup>a</sup> Chi-square test results show the significance of differences between respondents from each subgroup compared to those who are not in each subgroup. <sup>b</sup> Audience groups are not mutually exclusive. Respondents could identify in more than one group. <sup>c</sup> The number of respondents who identified as other races was too low to examine meaningful and significant differences in this study.

<sup>&</sup>lt;sup>a</sup> p values show the significance of the chi-square test examining differences between groups reported in this table and those who are not members of those groups.

Analysis of social media data further revealed how HRN messaging facilitated community engagement and coping. Social media users often participated in virtual conversations in response to HRN messaging that was shared online, and the highest engagement happened in response to the "Feeling Low" message (6,137 total engagements on all social media posts about the campaign in English and 3,733 in Spanish across Facebook/Instagram). In response to this message, new virtual communities formed where users actively shared their "real-life" coping strategies with one another (e.g., connecting with neighbors and engaging in self-care behaviors).

## EQ4b: To What Extent Is Campaign Exposure to HRN Associated With Resiliency?

Findings from pre–post analysis revealed overall increases in one's confidence in their ability to bounce back (15%) across all groups after viewing in-survey HRN messaging. People experiencing violence and economic distress and Hispanic respondents reported the highest increases in confidence that they would bounce back (26%, 26%, and 22%, respectively; p < .05). People with preexisting conditions also reported a 13% increase in "bounce back" resilience after viewing HRN messages (Table 4).

#### **Discussion**

HRN was developed during a moment in time when Americans were struggling with the new reality of a serious respiratory virus, requests to socially isolate, and mandates for business closures. As a result, quickly accessible, evidence-based mental health resources were in need. HRN was developed and launched over a period of only 3 months, right at the beginnings of the COVID-19 public health emergency. From its earliest formative stages, the campaign was envisioned to help connect those audiences most in need with existing mental health resources. The campaign worked with and through partners to deliver these messages and resources. In this way, the approach deviated significantly from traditional public health campaigns that use mass media approaches. HRN's approach was also intended to support culturally responsive communications, as partners and other trusted voices were the primary dissemination channels, but they also contributed to the development of the campaign and contributed feedback throughout it in order that the campaign could evolve over this time period as the pandemic evolved. This also led the study team to design an evaluation befitting of this innovative campaign approach—one that leverages multiple data sources to assess campaign outcomes.

Overall, evaluation results revealed that HRN met its intended audiences where they were, with what they needed, when they needed it. People experiencing violence and economic distress reported the highest levels of stress and discord in the family. These audiences, as well as NH Black and Hispanic respondents, were also most likely to be exposed to the campaign or similar mental health/coping messaging and be receptive to it, and exposure to this messaging was associated with being more likely to seek mental health information/support among these same groups (potentially due to the channels and voices through which the campaign's messages were disseminated). Additionally, HRN had positive effects on increased confidence in engaging in coping behaviors

and resilience for all groups but had the greatest positive effects on people experiencing violence and economic distress and people from racial/ethnic communities, as measured by message exposure. These findings signal how HRN helped fill an important gap at this moment in time.

Moreover, while the evaluation found significant positive effects for people experiencing violence and economic distress, NH Black and Hispanic respondents were overrepresented in these groups. This signals how HRN was successful in supporting the needs of those who were struggling the most during this time. Moreover, based on these findings, the campaign pivoted following this evaluation to focus solely on audiences who were experiencing disproportionate mental health impacts as a result of disruptions to social determinants of health amidst the pandemic. This follow-on phase included conducting new formative research with African American/Black, Hispanic/Latino (in English and Spanish), and American Indian or Alaska Native communities and developing new, tailored messages and resources. This evinces how the campaign has continuously addressed the mental health needs of racial/ethnic communities disproportionately affected by COVID-19-in the pandemic and beyond it (McKnight-Eily et al., 2021).

#### Limitations

This study has several limitations that create opportunities for future work. This research focused on HRN's audiences, so while it has general applicability, the study's findings reflect these audiences' experiences and perceptions. The self-reported nature of the data may have also resulted in the possibility of selection bias, and within-group variances may have occurred due to the study's cross-sectional design. Further, the small number of Spanish-speaking survey respondents limited the generalizability of the findings for this community. Finally, the aggregation of three time periods of data was needed for a sufficient sample size because of low levels of campaign exposure to HRN or similar messaging; this allowed for an assessment over time but masks possible variation at different time points. This is noteworthy for the August 2020 survey, as it was fielded shortly after campaign launch, which could have resulted in false recall or desirability bias for campaign exposure.

## Implications for Practice and/or Policy and Research

A main critique of health communication campaigns has been their inability to affect measured change (Dutta-Bergman, 2005). The HRN campaign represents a valuable addition to the literature both theoretically and translationally and, as such, offers possible responses to these critiques.

Theoretically, HRN's evaluation design contributes to the field by providing a framework for enabling a better understanding of campaign impact. Triangulating survey and social media and website data led to our ability to answer each of the evaluation questions, have confidence in our findings (EQ4a), and gain a deeper understanding of the overall trends in the survey data (EQ2, EQ3). As such, it demonstrates the strengths of leveraging multiple data sources to assess campaign effects, which may be useful for health communication practitioners working on similar projects.

From a translational perspective, the findings that these audiences reported overall high levels of campaign exposure (Table 2) and high receptivity to campaign messages highlight the success of the campaign in meeting their needs. Further, the association between message exposure and increased information seeking (Table 3), coping behaviors, and perceptions of resilience (Table 4) signals HRN's success in supporting the mental health of the communities with the greatest need during this time.

These results suggest that HRN, a theory-driven, culturally responsive, evidence-based mental health communication campaign, may be a valuable resource for communities struggling with access to mental health resources prior to and amid the pandemic. They also suggest that HRN and other similar campaigns can be developed and tailored to support the ongoing needs of the communities they seek to serve in order to have a positive impact on people's mental health.

**Keywords:** mental health, COVID-19 pandemic, communication campaign evaluation, disproportionately affected groups, emotional well-being

#### References

- Albalawi, R., Yeap, T. H., & Benyoucef, M. (2020). Using topic modeling methods for short-text data: A comparative analysis. Frontiers in Artificial Intelligence, 3, Article 42. https://doi.org/10.3389/frai.2020.00042
- Andrasfay, T., & Goldman, N. (2021). Reductions in 2020 US life expectancy due to COVID-19 and the disproportionate impact on the Black and Latino populations. *Proceedings of the National Academy of Sciences of the United States of America*, 118(5), Article e2014746118. https://doi.org/10.1073/pnas.2014746118
- Burke-Garcia, A. (2023). Communicating through a pandemic: A chronicle of experiences, lessons learned, and a vision for the future. CRC Press. https://doi.org/10.4324/9781003267522
- Burke-Garcia, A., Berktold, J., Rabinowitz, L., Wagstaff, L., Thomas, C. W., Crick, C., Walsh, M. S., Mitchell, E. W., Verlenden, J. M. V., Puddy, R., Mercado, M. C., Xia, K., Aina, T., Caicedo, L., & Nelson, P. (2023). Assessment of mental health and coping disparities among racial and ethnic groups amid COVID-19 from the "how right now" campaign. *Public Health Reports*, 138(1), 174–182. https://doi.org/10.1177/00333549221121667
- Burke-Garcia, A., Johnson-Turbes, A., Mitchell, E. W., Verlenden, J. M. V., Puddy, R., Mercado, M. C., Nelson, P., Rabinowitz, L., Xia, K., Wagstaff, L., Feng, M., Caicedo, L., & Tolbert, E. (2021). How right now? Supporting mental health and resilience amid COVID-19. *Traumatology*, 27(4), 399–412. https://doi.org/10.1037/trm0000322
- Centers for Disease Control and Prevention. (2018). Well-being concepts.

  Retrieved February 28, 2024, from https://archive.cdc.gov/www\_cdc\_gov/hrqol/wellbeing.htm
- Coley, R. L., & Baum, C. F. (2022). Trends in mental health symptoms, service use, and unmet need for services among US adults through the first 8 months of the COVID-19 pandemic. *Translational Behavioral Medicine*, 12(2), 273–283. https://doi.org/10.1093/tbm/ibab133
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression* and Anxiety, 18(2), 76–82. https://doi.org/10.1002/da.10113
- CrowdTangle. (2023). https://www.crowdtangle.com/
- Diener, E., Suh, E., & Oishi, S. (1997). Recent findings on subjective wellbeing. *Indian Journal of Clinical Psychology*, 24(1), 25–41.
- Dutta-Bergman, M. J. (2005). Theory and practice in health communication campaigns: A critical interrogation. *Health Communication*, 18(2), 103–122. https://doi.org/10.1207/s15327027hc1802\_1

- Ettman, C. K., Abdalla, S. M., Cohen, G. H., Sampson, L., Vivier, P. M., & Galea, S. (2020). Prevalence of depression symptoms in US adults before and during the COVID-19 pandemic. *JAMA Network Open*, 3(9), Article e2019686. https://doi.org/10.1001/jamanetworkopen.2020.19686
- Frierson, H. T., Hood, S., Hughes, G. B., & Thomas, V. G. (2010). A guide to conducting culturally responsive evaluations. In J. Frechtling (Ed.), *In the* 2010 user-friendly handbook for project evaluation (pp. 75–96). National Science Foundation.
- Google. (2023). Marketing platform. https://marketingplatform.google.com/ about/analytics/
- Griffith, D. M., Holliday, C. S., Enyia, O. K., Ellison, J. M., & Jaeger, E. C. (2021). Using syndemics and intersectionality to explain the disproportionate COVID-19 mortality among Black men. *Public Health Reports*, 136(5), 523–531. https://doi.org/10.1177/00333549211026799
- Hubspot. (2022). UTM codes: How to create UTM tracking URLs on Google analytics. https://blog.hubspot.com/marketing/what-are-utm-tra cking-codes-ht
- Instagram. (2023). Instagram ads in ad manager. Meta. https://business.instagram.com/a/adsmanager
- Kaiser Family Foundation. (2022). COVID-19 cases and deaths by race/ ethnicity: Current data and changes over time. https://www.kff.org/coronavi rus-covid-19/issue-brief/covid-19-cases-and-deaths-by-race-ethnicity-cur rent-data-and-changes-over-time/
- Lim, S., Tucker, C. S., & Kumara, S. (2017). An unsupervised machine learning model for discovering latent infectious diseases using social media data. *Journal of Biomedical Informatics*, 66, 82–94. https://doi.org/ 10.1016/j.jbi.2016.12.007
- McGuire, W. J. (1989). Theoretical foundations of campaigns. In R. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (pp. 43–65). Sage Publications.
- McKnight-Eily, L. R., Okoro, C. A., Strine, T. W., Verlenden, J., Hollis, N. D., Njai, R., Mitchell, E. W., Board, A., Puddy, R., & Thomas, C. (2021). Racial and ethnic disparities in the prevalence of stress and worry, mental health conditions, and increased substance use among adults during the COVID-19 pandemic—United States, April and May 2020. Morbidity and Mortality Weekly Report, 70(5), 162–166. https://doi.org/10.15585/mmwr.mm7005a3
- Meta. (2023). Ads manager. https://www.facebook.com/business/tools/ads-manager
- Milstein, R. L., & Wetterhall, S. (1999). Framework for program evaluation in public health. *MMWR Recommendations and Reports*, 48(RR-11), 1–40. https://stacks.cdc.gov/view/cdc/5204
- NORC at the University of Chicago. (2010). 2010 national sample frame. https://www.norc.org/Research/Projects/Pages/2010-national-sample-frame.aspx
- NORC at the University of Chicago. (2023). *Designing health campaign evaluations for today's media environment*. https://www.norc.org/research/topics/health-communication-science.html
- Talkwalker. (2023). https://www.talkwalker.com/
- Thomeer, M. B., Moody, M. D., & Yahirun, J. (2023). Racial and ethnic disparities in mental health and mental health care during the COVID-19 pandemic. *Journal of Racial and Ethnic Health Disparities*, *10*(2), 961–976. https://doi.org/10.1007/s40615-022-01284-9
- United States Census Bureau. (2022). Current population survey (CPS). https://www.census.gov/programs-surveys/cps.html
- University of Alabama. (2022). How the COVID-19 pandemic changed society. Retrieved February 26, 2024, from https://www.uab.edu/news/ youcanuse/item/12697-how-the-covid-19-pandemic-changed-society
- Veenhoven, R. (2008). Sociological theories of subjective well-being. In M. Eid & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 44–61). Guilford Press.
- Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (2010). Handbook of practical program evaluation (Vol. 19). Wiley.