

A Formative Research Approach to Developing Prescription Opioid Misuse Prevention
Messages

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Project Direction

This project involves the formative research for, development of, and survey-based and biometric testing of messages to prevent prescription opioid misuse. The messages will be tested with and eventually disseminated to Mississippi adults ages 30-59 through social media, print media, and programming and interventions delivered by university Extension Service agents.

This project will address the following aims:

Aim 1: Conduct survey research with Mississippi adults to evaluate Theory of Planned Behavior (Ajzen, 1985) predictors of intention to perform six identified opioid misuse prevention behaviors:

- 1) store prescription opioids securely,
- 2) dispose of prescription opioids safely,
- 3) monitor prescription opioid use of those in their care,
- 4) talk to children about proper medication use,
- 5) talk to older adults about prescription opioid safety, and
- 6) talk to healthcare providers about safer alternatives to prescription opioids.

Aim 2: Develop theory-based prevention messages designed to promote the six key opioid misuse prevention behaviors.

Aim 3: Evaluate prevention messages for acceptability and effectiveness.

Aim 4: Refine and disseminate opioid misuse prevention messages.

Justification of Project's Importance

Preventing death from opioid misuse and abuse is an issue of growing importance. More than 42,000 people died from opioid overdoses in the U.S. in 2016, and 40% of those deaths were related to prescription opioid use (U.S. Department of Health and Human Services, 2019). In the same year, Mississippi experienced 103 deaths from prescription opioid overdose, a number that continues to rise. On average, Mississippi providers write more per capita opioid prescriptions than the national figure (107.5 opioid prescriptions per 100 persons vs. a U.S. rate of 70 prescriptions per 100 persons; National Institute on Drug Abuse, 2018). There are multiple levels of intervention that can address the growing opioid epidemic. This project uses a health communication campaign to address modifiable risk factors for prescription opioid misuse.

Opioid misuse is responsible for substantial morbidity and mortality. Therefore, this research addresses the conference theme, "Communication for Survival," quite literally. The resulting messages will have the possibility of improving well-being and saving lives.

Description of the Relevant Literature

Prior research has examined the effects of communication campaigns related to prescription opioid misuse. Materials have been developed for and tested in other locations (e.g., Kearney, Reynolds, Blitzstein, Chapin, & Massey, 2019; Yanovitzky, 2017), for other target audiences (e.g., Patry et al., 2018), or for other behaviors (such as seeking treatment for substance use disorders), but there are no existing campaigns addressing the prevention of prescription opioid misuse in Mississippi.

Meta-analyses of mediated health communication campaigns (specifically Anker, Feeley, McCracken, & Lagoe, 2016, and Snyder et al., 2004) have shown that these campaigns can have

small but significant effects on behavior. Noar (2006) recommends that health mass media campaigns adopt several best practices to increase the likelihood of creating effective messages: “conduct formative research” with the target audience, “pretest messages” for appropriateness and effectiveness, and “use theory as a conceptual foundation” (p. 25).

In this project, we use multiple recommended practices for message development and testing. First, we use the Hornik and Woolf approach to select beliefs to target (Hornik & Woolf, 1999; Hornik et al., 2019) and the Theory of Planned Behavior (Ajzen, 1985) as our theoretical approach. We conducted a formative research survey with adult Mississippians to evaluate beliefs associated with Theory of Planned Behavior predictors (attitude, subjective norm, and perceived behavioral control) for the six targeted primary prevention behaviors. In accordance with the Hornik and Woolf approach, we used this survey data to identify *promising beliefs*, beliefs that were both associated with behavioral intention and that had substantial “percentage to gain” (i.e., they were not currently held by all of the members of the priority population, Hornik et al, 2019, p. 60). Next, we drafted messages based on these beliefs, and these messages are being pretested for acceptability and effectiveness. We will establish acceptability and effectiveness through survey-based assessments, which will include measures of perceived effectiveness (using approaches similar to Bigsby, Cappella, & Seitz, 2013) and changes in Theory of Planned Behavior (Ajzen, 1985) constructs. We will also use eye tracking to examine gaze location and duration and examine correlates between participant attention to message variations, participant understanding of the messages, and message effectiveness in changing desired behavioral intentions.

Desired Project Outcomes

The project has the following desired outcomes for each research aim:

Aim 1: The desired outcome related to Aim 1 was to select promising beliefs (based on the Hornik and Woolf approach) to address in the campaign messages. Based on survey data, the project team established multiple promising beliefs, each of which was related to a Theory of Planned Behavior predictor of intention to perform the targeted opioid misuse prevention behaviors. (COMPLETE)

Aim 2: The desired outcome related to Aim 2 was to develop theory-based prevention messages. Based on the results of the formative research (Aim 1), the project team generated draft prevention messages addressing attitude toward and perceived behavioral control for each of the six key prevention behaviors. (COMPLETE)

Aim 3: The desired outcome of Aim 3 is to determine, through testing draft messages with members of the priority population, which draft messages are most acceptable and effective in changing intention to engage in each of the six prevention behaviors. Qualitative interviews have been carried out, and survey and biometric testing will begin in April 2019 and be complete by June 2019.

Aim 4: The desired outcome of Aim 4 is to produce final messages that have been shown to be acceptable and effective and disseminate these opioid misuse prevention messages to Mississippi adults ages 30-59 through social media, print media, and programming and interventions delivered by university Extension Service agents. Our goal is to significantly improve attitudes toward the six key prevention behaviors, increase perceived behavioral control to engage in the prevention behaviors, and increase intention to engage in the prevention behaviors.

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