



# Data Points

It's All in the Framing: Suicide Prevention Public Service Announcements and YouTube

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## Overview

This episode features Senior Project Associate Don Harris, MBA, and discusses key takeaways from his recently published paper, [“Exploring the Association Between Suicide Prevention Public Service Announcements and User Comments on YouTube: A Computational Text Analysis Approach.”](#) *Data Points* is an ongoing podcast series produced by Policy Research that discusses research for social change.

## Don Harris:

Using a format that supports a storyline, something that people can really connect with, probably extracts a deeper engagement from the viewing audience. Gain-frame messages seem to elicit more positive comments from the viewers of the PSAs. And then narrative-formatted PSAs definitely elicit more help-seeking language.

## Holley Davis:

That was Don Harris, Senior Project Associate at Policy Research. In this podcast, he discusses his new paper, “Exploring the Association Between Suicide Prevention Public Service Announcements and User Comments on YouTube: A Computational Text Analysis Approach.”

Welcome to *Data Points*, where we discuss research for social change. *Data Points* is a production of Policy Research. My name is Holley Davis and I’m the Communications Director at Policy Research. In this episode, in recognition of Suicide Prevention Awareness Month, I’ll be speaking with my colleague, Don Harris, about his paper that was recently published in the *Journal of Health Communication*.

Mr. Harris is the Assistant Director of the Service Members, Veterans, and their Families Technical Assistance Center, which is operated by Policy Research. In his role, he works with state and local inter agency teams to support strategic planning and implementation for behavioral health systems serving service members, Veterans, and their families across the nation. All right, so Don, welcome. Let’s dive in. Tell us about your research. What was the topic of your paper and why did it interest you?

## Don Harris:

Hi, Holley. So this research was about exploring the association between public service announcements focused on suicide prevention and the user comments for those videos on YouTube. And my co-author and I were interested in this topic because we’ve seen a dramatic increase in suicides across the country over the past 2 decades to the tune of about 30%. And we wanted to

understand how social media, which has become ubiquitous across our country, what role it plays in suicide prevention and mental health promotion overall.

### **Holley Davis:**

That's really interesting. So what role does social media and specifically YouTube, which was the subject of your paper, play in suicide prevention awareness?

### **Don Harris:**

So social media platforms were the focus of this research mainly because of their pervasiveness and they are essentially ubiquitous across the country. Nearly everyone uses some type of social media at some point. YouTube was a special focus because, and many people don't know this, but YouTube is really the most popular social media platform, even more so than Facebook. And I think somewhere around 95% of social media users use or claim to use YouTube at some point in time. The topics that are covered are pretty widespread. The age range that watches YouTube is the widest amongst all social media platforms. Beyond that, social media is bidirectional. So you can share information one way and get feedback another way, which was especially important for this research.

And then last but not least, it's helpful for reaching those hard-to-reach populations. And with the social stigma around suicidal ideation, it's helpful to share a message through social media and be able to get some of that feedback and get that information to those folks who may be watching social media but not feel comfortable or confident in reaching out for help. So it's a means of getting an intervention message out to the population.

### **Holley Davis:**

Great. So what I'm hearing is that it's the most broadly applicable social media platform where you have the widest demographics of audience and then also one of the highest used platforms. Is that right?

### **Don Harris:**

Absolutely. Absolutely.

### **Holley Davis:**

Can you tell us how many videos and the number of comments that you and your co-author examined?

### **Don Harris:**

We started with a little over 100, and this is what we actually sought was some saturation to be sure that we were capturing all of the videos. So there was some, using the keywords that we used, some duplicates that we had to remove. There were some videos that weren't necessarily related to suicide prevention. Some weren't necessarily public service announcements. So through the collection of

videos, when we nailed down, we got to about 72 that were specifically suicide prevention public service announcements. There were no restrictions on timeframes or anything of that nature. And from those videos, what we extracted were a little over 4,000 comments to sift through. If I'm not mistaken, somewhere around 4,300 was the total number of comments. And they were classified of course, as in one of these categories that we were referring to.

### **Holley Davis:**

In your paper, you make distinctions between narrative and argument video formats and gain and loss video framing. Can you explain what those terms mean? So let's start with narrative and argument format.

### **Don Harris:**

Absolutely. Sure. So narrative and argument formats refer to how the message is delivered in a PSA. Narrative format is just as it sounds, it follows a storyline, that typical story arc, which has a beginning, a middle, and an end. Typically, there's a protagonist in the storyline, even if it's a 30-second or 1-minute PSA. So for example, you may see a high school student having some issues, maybe getting bullied in school. You'll follow the storyline of that character through the PSA, either watching them seek help or maybe running into further issues, depending on the message of the PSA. So the message goes across through the story as they attempt to get you to engage with the character in the narrative.

An argument format on the other hand, does not follow a storyline. So it simply delivers statistics and tries to compel you through reasoning. It may say suicide rates have risen 30% over the past 10 or 15 years. It may give more statistics about the number of folks who call crisis lines and the number of people who get help. And that may be as simple as text that comes up on the screen. So those are the differences between narrative and argument formats.

Moving on to gain and loss framing, those refer to the types of consequences that are emphasized within the PSAs. So a gain frame would emphasize a positive outcome, a positive consequence as a result of some action or inaction within the PSA.

A loss frame is the opposite of that, would reflect or emphasize some negative consequence as a result of some action or inaction. So taking the same example, you could have a high school student who comes in contact with an individual who says, "Can we call the crisis line together?" And you see the resolution of that by the end of the PSA as some positive outcome. That would be a gain frame. A loss frame would be framed something like, "This is what would happen if you don't call the crisis line." And so those were the key elements that we focused on for this study.

### **Holley Davis:**

Thanks for those examples. That was really helpful. So you were looking at the relationship between PSA framing and help-seeking language in the comments. How did you study the relationship between the two?

## Don Harris:

In order to study these, we had a two-step methodology and approach. So the first step was to collect YouTube videos focused on suicide prevention public service announcements. Once we were able to gather that group of public service announcements, we conducted a content analysis. So what that entailed was getting in touch with two independent coders and developing essentially a checklist for them to go through to determine whether or not a video was narrative format, based on some specific criteria, or argument format, which we developed. And likewise, with gain and loss framing, they were to go through the coding and coded either gain or loss framing. So these independent coders had no knowledge of the research questions we were looking for. Just simply, would you be able to go through this collection of videos to identify these specific attributes? And there was some overlap with the videos that they watched, and we used that to really measure the inter-rater reliability between the coders. That was the first stage.

The second stage was to take the comments for those videos, and we used really two different text analysis approaches. One was, and both were using R, one was called Valence Aware Dictionary and sEntiment Reasoner in short name called VADER. And that's a sentiment-analysis package designed for social media, where you could determine the positive and negative sentiment scores for social media comments. That was used to really get a sense of whether or not there was positive or negative sentiment. And then we use what we call Latent Semantic Scaling in order to determine the help-seeking degree for different comments.

## Holley Davis:

So what did you find when you ran these different analyses?

## Don Harris:

Yeah, so our results indicated that a higher ratio of positive comments were found on gain-frame and narrative-formatted PSAs. And then higher ratio of help-seeking language was found on narrative-formatted PSAs. So what that suggests is that the framing and formatting of PSAs is related to the types of engagement that users have. So the comments and the feedback that's provided, but even more specifically using a format that supports a storyline, something that people can really connect with, probably extracts a deeper engagement from the viewing audience. So in looking at the comparison between those that had the gain and loss frame, and this is really a little different than what we've seen in past studies in terms of gain and loss framing, gain-frame messages seem to elicit more positive comments from the viewers of the PSAs. And then what is consistent with previous studies is that narrative-formatted PSAs did definitely elicit more help-seeking language.

## Holley Davis:

So narrative format and gain-framed videos tend to be more positively received. And narrative-formatted videos are associated with help-seeking language. Is that right?

**Don Harris:**

That's correct. So our findings do suggest that narrative-format gain-frame videos or PSAs are more likely to elicit those positive comments. And then narrative-formatted PSAs are more likely to be associated with comments that use help-seeking language.

**Holley Davis:**

Could you provide examples of what positive comments would be as well as help-seeking comments? How did you classify those two?

**Don Harris:**

Sure. So a positive comment may be something to the effect of, and I guess a caveat I should put in is that suicide prevention comments are especially tricky. So in order to really delineate between positive and negative, which was scaled on a negative five to positive five scale, using the sentiment analysis, we had to eliminate those that were in the middle because they were kind of on the fence in that gray area. So anything that was between a negative two to zero and a zero to positive two was eliminated from the study. And essentially we took the extremes to be sure that we were getting something that was truly positive and truly negative within the study. So those comments are the ones that were included.

Something that would be a positive comment would be something to the effect of, "I'm glad to see this person got help. I was in a similar situation." These are the types of YouTube comments we might see. "The crisis line is definitely helpful." So certain terms have a semantic relationship with other terms. So seeing the word help, we're not necessarily looking for that word, but looking for words that may be similar or I guess have a relationship with that word as well.

Then on the opposite end, negative may be the opposite of that. "I've tried to call this line, nothing helps. I don't see any point of doing this, this, or this." That may be labeled as a negative comment after reviewing a video.

And then getting into how the Latent Semantic Scaling measured the comments as read in the manuscript for the study, we had to use a set of seed words. So essentially the best way it can be described is, so there's five words we give that are polar opposites of each other. The most prototypical will be good and bad. And so what you would do is look at how close words are related to either the word good or the word bad on that single dimension. But we were looking for words that were in the domain of suicide prevention essentially, and how closely words are related to help seeking or help avoidance, for instance, something to that effect.

**Holley Davis:**

That's really helpful to hear, Don. Is there anything else that you'd like to add before we wrap up?

## Don Harris:

I'd just like to emphasize that this research, while it highlights some potential usefulness of different social media platforms to support suicide prevention initiatives and interventions, it's a small piece of the puzzle, and there's still a lot more work to be done in terms of understanding how we can use different tools as we advance into the future to help support those who may be having issues reaching out for help or may have negative perspectives about seeking mental health support.

## Holley Davis:

Don, thank you so much for your time today. It's been so helpful to hear how public health and communications professionals can tailor their suicide prevention messaging. I really appreciate the work that you and your co-author have done on this topic.

"Exploring the Association Between Suicide Prevention Public Service Announcements and User Comments on YouTube: A Computational Text Analysis Approach" was published by the *Journal of Health Communication*. It was authored by Don Harris and Archana Krishnan. The link to the study can be found in our show notes.

This has been an episode of *Data Points*, a production of Policy Research. Learn more about us by visiting [prainc.com](http://prainc.com). If you have questions or comments about this episode, email us at [communications@prainc.com](mailto:communications@prainc.com). *Data Points* is available via Spotify, Stitcher, Apple Podcasts, and SoundCloud. This episode was produced and hosted by Holley Davis and engineered and edited by Elianne Paley. Until next time, keep creating positive social change.

## About

Policy Research Associates, Inc. (PRA) is a Women-Owned Small Business (WOSB) founded in 1987. In partnership with our sister non-profit, Policy Research, Inc. (PRI), we offer four core services: research, technical assistance, training, and policy evaluation. Through our work, we enhance systems that assist individuals with behavioral health needs on their journey to recovery.

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