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Abstract

Mental health is a concern in Carbon and Emery Counties of Utah, particularly in its association with coal mining. An event was held to raise awareness about how the industry impacts mental health and resources to address it. Results from pre- and post-surveys show the usefulness of the event to attendees.

Introduction

Mental health is a top concern in communities across Utah (Summers et al., 2019). This concern is particularly pertinent in rural parts of the state (Koci et al., 2023), including Carbon and Emery counties, where the dominant resource industry is coal mining. Recent research conducted among coal miners in the Carbon County area found that physical health risks (e.g., potential for injury and loss of life), job-related stress (specifically job loss, uncertainty, and insecurity or having non-transferable job skills), and fear of national-level decisions rendering mining obsolete can lead to poor mental health outcomes (Koci, 2024). Poor mental health outcomes in this study included depression, anxiety, and Post Traumatic Stress Disorder. With these mental health outcomes in mind, intervention is needed, including raising awareness about the relationship between coal mining and mental health, continuing a conversation about this issue, and providing resources to affected populations.

Response & Target Audience

To address the relationship between coal mining and mental health in Carbon and Emery counties, a collaboration between Utah State University (USU) Health Extension: Advocacy, Research, and Teaching (HEART) Initiative, the USU Community and Natural Resources Institute (CANRI), the Southeast Utah Health Department, and the Hope Squad of Carbon, Emery, and Grand Counties resulted in a one-time event titled “Carbon and Emery Conversations for Coal Miners and Mental Health.” While not included in the study mentioned above, Emery County was part of this event as they face challenges with coal mining and mental health similar to those found in Carbon County.

The event was held on April 30, 2024, and included a 45-minute research presentation on the connection between coal mining and mental health in the area by Dr. Koci and a 15-minute Narcan training. Additionally, 13 local community organizations set up booths at the event to raise awareness about mental health and substance use disorder resources available in Carbon and Emery counties. Narcan kits were available to attendees at no cost. USU HEART Initiative aided in facilitating the event by advertising in Carbon and Emery Counties, securing a space for the event to be held, coordinating with USU to provide a meal to attendees, inviting attendees, and working with county partners to provide resources at the event.

The target population for this event included over 60 individuals. The event was also recorded for future viewing (<https://youtu.be/8NHit6mtrYU>) and may reach a broad audience. Event attendees included residents of Carbon and Emery counties, coal mine employers and employees, local community organizations, state agencies, and local news outlets. Of the 57 individuals who filled out a pre-event survey, 28% indicated that they were currently or had previously been employed with the coal industry, and 89% indicated that their family and friends are connected to the coal industry to some degree (i.e., a lot, a little, or somewhat connected). Additionally, 71% of individuals identified as female, and 75% as Non-Hispanic White.

Outcomes & Impact

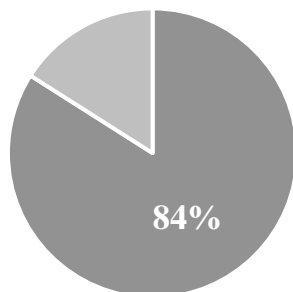
Pre- and post-surveys evaluated whether the event was helpful to participants, whether participants perceive mental health as a problem in mining communities, participants' awareness of mental health resources in the area, participants' ability to help others who may be experiencing mental health issues, and participants' knowledge about how to recognize and respond to an opioid overdose.

Post-surveys ($n = 55$) show that most participants were extremely or somewhat satisfied with the presentation overall (89%). The mental health information they learned through the presentation will definitely or probably change practices at their workplace (60%) and how they interact with family or friends experiencing mental health issues (71%). Additionally, after the Narcan training, most participants agreed that they had enough information about how to manage an overdose and that they knew how to administer Naloxone to an overdose victim.

Participants agreed that after the Narcan training, they know how to recognize and respond to an opioid overdose, including knowing how to identify various signs and symptoms of an overdose (96%), how to administer Naloxone (98%), and how to execute correct overdose response steps such as performing rescue breaths on someone who has overdosed (75%) and placing someone who has overdosed in the recovery position (95%).

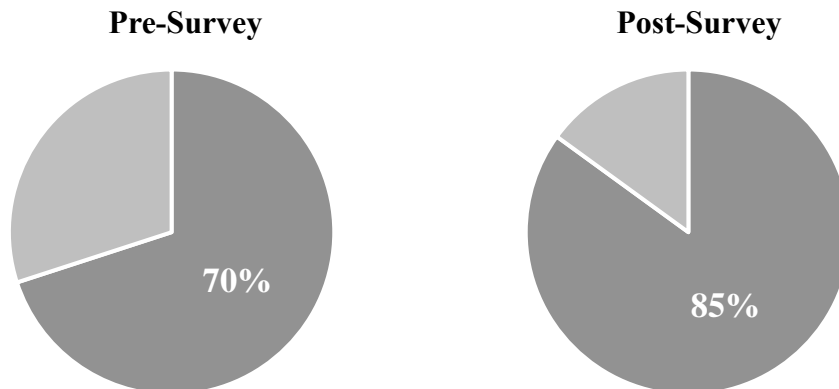
Summary Results from the Event:

"I believe mental health is a problem in mining communities."



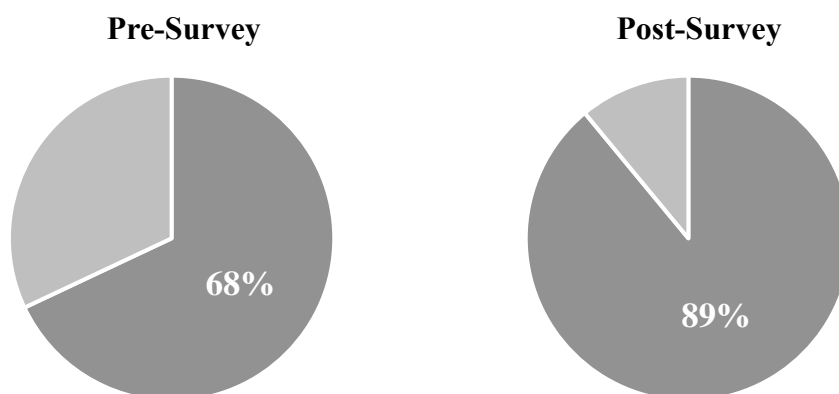
84% of participants strongly or somewhat agree that mental health is a problem in mining communities.

“I am aware of mental health resources that are available to those who may be experiencing mental health issues.”



Most participants (85%) of participants strongly or somewhat agree that they are aware of mental health resources that are available to those who may be experiencing mental health issues, compared to 70% of participants in the pre-survey.

“I am confident that I know how to help others who may be experiencing mental health issues.”



Many participants (89%) strongly or somewhat agree that they are confident they know how to help others who may be experiencing mental health issues, compared to 68% of participants in the pre-survey.

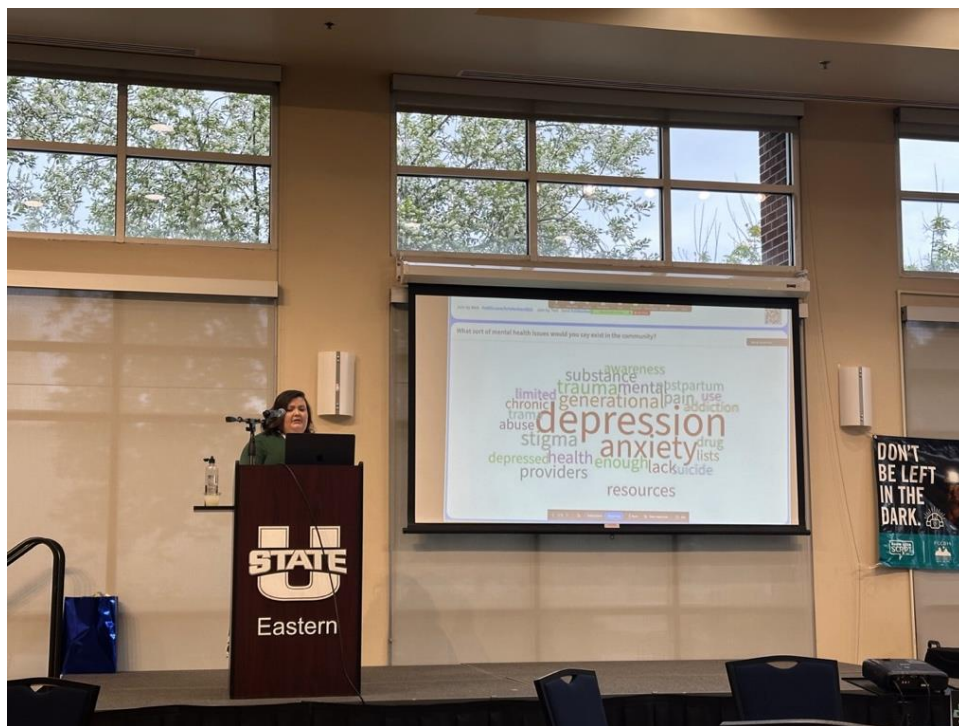
We asked survey participants to share some key takeaways from the event overall. Some key takeaways shared included: “I loved it! Very informative, great presentation, kept audience engage and learned a lot! It was interesting to hear actual answers from those who were interviewed in her [Dr. Koci’s] study. It made it relatable with human interaction,” and “Interesting findings from Dr. Koci and the narcan training was really helpful. Thanks!” One individual also commented on reducing stigma, saying, “Mental health is very important. Change has to start with ourselves in order to change the stigma.”

In addition to results from pre-and post-surveys, the event provided various mental health and substance use disorder resources to those in attendance. For example, over 50 Narcan kits were handed out at the end of the Narcan training, and booths provided attendees with accessible local resources they could utilize in times of need. Further, the event created a space for various community connections.

Public Value & Next Steps

The Carbon and Emery Conversations for Coal Miners and Mental Health event addressed the topic of and continued a conversation about coal mining and mental health. In bringing further awareness to the relationship between coal mining and mental health, providing resources to attendees, and encouraging community connections, this event contributed to breaking down the stigma surrounding mental health, substance use disorder, and accessing needed care. Moving forward, continued discussion about coal mining and mental health will be important, as will continued efforts to break down treatment barriers and stigma. The more openness there is around coal mining, mental health, and substance use disorder, and the more conversations there are about these issues, the greater the opportunity for de-stigmatization. Creating spaces where these conversations can be continued and developing future educational programming focused on these issues is imperative.





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