

Introduction

Mental Health in Agriculture

Mental health problems have become a growing concern in the agricultural industry (Fraser et al. 2005). Agricultural producers have higher rates of depression, anxiety, and suicide risk (Bjornestad et al., 2021; Schirmer et al., 2015). Farming is associated with a unique set of characteristics that are potentially hazardous to mental health (Fraser et al., 2005). Fraser et al. (2005) found farm stress can be caused by loneliness, poor work-life balance, risk of injury or illness, tension between generations, or the constancy of responsibilities. Braun (2019) found the stressors that cause the most distress were the elements out of an individual's control, such as weather, market prices, taxes, and healthcare costs. In addition, farmers face physically hazardous risks, such as exposure to pesticides and chemicals, long working hours, unpredictable weather conditions, and physically demanding work, which can impact their mental health (Fraser et al., 2005). First-generation agriculturalists may be particularly at risk for suicide (Montgomery et al., 2024). Despite these increased risks, farmers have not always been proactive about their health until it became a serious issue (Cole & Bondy, 2020). While suicide is a risk for producers, risk factors vary across demographic characteristics, which makes addressing the issue more complicated (Miller & Rudolphi, 2022).

Importance of Mental Health Resources

Coping mechanism can help prevent suicidal ideation among agriculturalists (Montgomery et al., 2024). But developing coping mechanisms may require resources that are not always present. People living in rural communities often face challenges when seeking mental health treatment, including lack of desire, lack of anonymity, shortage of professionals, lack of culturally competent care, affordability, and transportation (Rural Health Information Hub, 2019). Farmers have been found to be less aware of mental health services and do not access them. If they do access services, they might face delays and unreimbursed costs (Gregoire, 2002).

Many resources have been developed for farmers' mental health since the 1980s financial crisis, but the issue remains prevalent (Rosmann, 2008). Farmers and farm families require resources about the signs and symptoms of mental health issues and suicide (Reed & Claunch, 2020), and they must include how the issues affect farmers specifically, along with sources of help (Hagen et al., 2020). Promoting resilience and reducing stigma toward mental health issues are critical approaches to address farmer suicide and mental health (Hagen et al., 2019). Increasing mental health literacy by encouraging open and safe communication about the topic can counter the behavior patterns that maintain personal and structural stigma in rural communities (Kennedy et al., 2016). Completely eliminating stressors for farmers and ranchers may not be achievable, but practicing stress management and intervention practices can help prevent mental health conditions (Rudolphi & Barnes, 2020).

When assessing sources of information, farmers consider local information the most trustworthy (Gunn et al., 2021). Often, they require the validation of a family member or trusted person to convince them to seek support from a professional (Drouillard et al., 2017) because they are more likely to try to be self-reliant about their health than the general population (Cole & Bondy, 2020). Farmers prefer to be sent the information they need instead of actively seeking

it on a website, and they desire websites with specific, targeted resources (Gunn et al., 2021). Hagan et al. (2019) found farmers in the United States, Canada, and Australia are more likely to seek help for mental health issues if the resources portray expertise in agriculture and farm life.

Despite the critical role of mental wellbeing in sustaining agricultural livelihoods, there is a lack of research examining the adequacy and accessibility of online mental health resources within this population. This study addressed this gap by examining the existing mental health materials targeting Oklahoma's agricultural community.

Mental Health Challenges in Agricultural Communities

Social isolation is commonly experienced by farmers (Nye et al., 2023) because of the rural areas they live in (Gregoire, 2002; Hendrickson, 2018) and their workloads (Gregoire, 2002). Farmers often deal with stress, financial pressure, and unique work conditions with little to no human contact, sometimes for days at a time (Padhy & Raju, 2020).

Due to increasing financial pressures, farmers may not be able to afford professional support (Hendrickson, 2018; Vayro et al., 2020). The financial volatility of agriculture that increases the need for mental health can also be the reason that keeps farmers from seeking help (Vayro et al., 2020). They also lack the time to get all their tasks done while balancing home life and getting enough sleep (Gilliland, 2022).

Mental health stigma has become one of the biggest barriers for farmers seeking help (Hagan et al., 2014) and increases the risk of suicide and the likelihood of poor mental health outcomes (Reynders et al., 2014). Farmers have been reported as stressed and depressed, and the stigma surrounding these emotions deters them from seeking help (Rudolphi & Barnes, 2020). Farmers welcome informal spaces of support in rural communities, but the tight-knit nature of these communities can contribute to gossip, which can complicate help-seeking in rural areas (Shortland et al., 2023; Vayro et al., 2023). Stigma can keep farmers from talking about their feelings with others (Gunn et al., 2021) because they fear appearing weak or admitting defeat (Hendrickson, 2018). This stigma is largely internal though because those same farmers would not judge someone else for seeking help (Hendrickson, 2018).

Farmers have a distinct context that should be considered in healthcare (Cole & Bondy, 2020). They are often closed off in a professional setting and getting them to discuss mental health is difficult (Gilliland, 2022). Hagen et al. (2021) found many farmers would not seek support from providers who were not considered credible by the farming community, meaning they did not have knowledge of the farming way of life. The generational commitment to farming can create barriers with professionals who do not understand farmers' mentality (Rural Health Information Hub, 2019). In one study, agricultural producers over the age of 58 felt providers were unfamiliar with their lifestyles and services were insensitive to their culture; therefore, they resisted help-seeking for mental health concerns (Polain et al., 2011). George (2023) found 66.7% of farmers and ranchers would be more willing to seek help if the counselor had a background or understanding of agriculture.

While we were not explicitly looking for Extension in the search for resources, during data collection it emerged as one of the major sources of agriculture-specific mental health resources in the state. As such, it is important to understand that Extension has shown up in past literature related to health, including nutrition (e.g., Nichols et al., 2021), drug abuse (e.g., Weybright et al., 2024), and mental health (e.g., Brown et al., 2023). Brown et al. (2023) made the case that Extension can be particularly important for rural communities because the

organization is already embedded in underserved communities and are engaged in evidence-based programming.

Impacts of Existing Mental Health Resources and Interventions

Baker et al. (2022b) found the best way to promote healthy help-seeking behavior among agricultural producers was to incorporate identity-based programming that increased social capital, and to provide tailored mental health education and training. Baker et al. (2022a) found county Extension specialists, public health departments, and phone helplines were at the bottom of the list for farmers preferred help-seeking sources. Vayro et al. (2020) reported that digital mental health services are promising and have the potential to address some of the accessibility barriers farmers face, but many issues need to be addressed. Barriers keeping farmers from using digital mental health services could include their attitudes toward the services, awareness of available services, or digital literacy regarding the services (Handley et al., 2014). In addition, poor internet connection, which is common in rural locations, prohibits farmers from accessing these resources (Shealy et al., 2015).

Farmers are willing to engage with websites specifically targeted at improving their mental health if they appear “relevant, authentic, and engaging,” (Gunn et al., 2021, p. 306) include real and positive farm-related photos and cartoons, use simple layouts and fonts, and include positive and carefully humorous language. Gilliland (2022) found farmers preferred in-person counseling over telehealth counseling, and they were hesitant to use technology-based services because of a lack of familiarity or digital literacy (Vayro et al., 2020).

Theoretical Framework

Kotler and Zaltman (1971) defined social marketing as “the design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution and marketing research” (p. 10). Social marketing theory emphasizes the application of marketing principles and techniques to promote social change and improve public health outcomes (Kotler & Zaltman, 1971). Two key aspects of social marketing are having a targeted behavior in mind and having a specific audience to target (Andreasen, 2002; Kotler & Lee, 2016). Whereas traditional marketing will focus on profitability, social marketing will determine its target audience and outcome based on social issues, including severity of the problem (Kotler & Lee, 2016). Social marketing also differs in that its marketing claims are generally based in empirical research (Evans & Hastings, 2008). Cooperative Extension has been an area social marketing has been recommended, though it may be underutilized (Sanagorski, 2014; Skelly, 2005).

The focus of the study was to understand how mental health information was communicated and disseminated in the agricultural community in Oklahoma. Through this thematic analysis of various textual and visual materials, the goal was to identify patterns and themes that aligned with the principles of social marketing. By examining existing online resources (e.g., websites, webinars, Extension fact sheets, etc.) through the lens of social marketing, this study aimed to uncover prevalent themes that could promote mental health awareness and utilization of resources among Oklahoma agriculturalists. This study contributed to the field by providing a comprehensive analysis of the communications landscape surrounding

mental health in the agricultural context with implications for enhancing the relevance, accessibility, and effectiveness of mental health support services for this population.

Purpose of the Study

The purpose of this study was to investigate the state of online mental health resources available to agriculturalists in Oklahoma. The guiding question of this study was the following: What were the prevailing themes within the content of existing mental health resources available to Oklahoma agriculturalists?

Methods

This study employed a qualitative approach, aiming to delve into the existing online mental health resources available to agriculturalists in Oklahoma. Braun and Clark's (2006) thematic analysis methodology was used to grasp the richness of the data.

The identification of resources began with a comprehensive Google search. Google was used because it is by far the most commonly used search engine in the world (Statcounter, 2025). Key search terms included *rural mental health*, *agriculture mental health*, *Oklahoma mental health*, and related variations. This approach was to gather diverse perspectives and insights from multiple sources. Only resources directly relevant to mental health support for agriculturalists in Oklahoma were included in the analysis, ensuring precision and relevance in the data collection process. Resources were selected from organizational websites, university resources, and other online platforms catering to Oklahoma agricultural communities using the following criteria:

1. The content was for or about Oklahoma agriculturalists,
2. The content was specific to mental health,
3. All links and videos within the content were accessible, and
4. The content within the links was relevant to the content of the native page.

Duplicates and irrelevant materials were excluded from the analysis to maintain the focus of the study. After a webpage was deemed relevant, all links from the page were included, facilitating a comprehensive examination of related content. The analysis encompassed a diverse range of resources, including webinars, fact sheets, webpages, and videos. These were all selected to provide a holistic understanding of the content of these resources to capture the diverse nature of mental health resources available to agriculturalists in the state. While the search was as broad as much as feasible, a potential limitation of the study is that some online resources targeting Oklahoma agriculturalists may not have been findable via a Google search. For example, if a podcast was targeting Oklahoma agriculturalists but was not posted on a website, it might not turn up in a Google search.

The analyzed content came from a total of seven sources. From those seven sources, 47 resources analyzed: 25 were from Oklahoma State University (OSU) Extension, 17 were from Oklahoma Farm Bureau, and one came from each of the following: Rural Health Information Hub, Morning Ag Clips, KOSU, Farms.com, and Enid News & Eagle.

Using MAXQDA, which is a qualitative analysis program, an inductive coding process was employed, as outlined by Creswell (2002), aligning with the exploratory nature of the study and allowing for the emergence of patterns from the data. Textual data were initially read and specific segments of information were identified to create categories. As more data were analyzed, categories were combined to reduce redundancy. After coding all textual data, the

codes were combined into emerging themes. Images were coded using the same coding scheme as the text. For video transcripts, verbal elements were coded using the same set of codes, while inductive coding allowed for the identification of emergent codes and themes derived from tone, emotion, and body language observed in the videos. Once all content was systematically coded, thematic analysis was used to categorize all codes into overarching themes (Braun & Clarke, 2006).

A variety of measures were taken to help ensure the rigor and trustworthiness of the study. Triangulation, which is the use of more than one type of data to establish findings, was used to enhance the credibility and confirmability of the study (Guba, 1981). Triangulation involved the integration of multiple resources analyzed from the websites, including interviews, webinars, and written materials, to ensure the reliability of the study's conclusions (Guba, 1981). The study includes a thick description of the research context, methods, and findings, enhancing the potential for the study's applicability to other contexts or populations (Guba, 1981). The use of direct quotes provided a deep understanding of the perspectives within the content, facilitating the transferability of the study findings to similar settings (Guba, 1981). All data sources, including search records, coding processes, and analytical memos were documented throughout the process using MAXQDA. This comprehensive audit trail served as a transparent record of the research process, facilitating reproducibility and accountability (Guba, 1981). Additionally, to ensure the accuracy and reliability of the coding process, an independent audit was conducted by a graduate student external to the research team (Guba, 1981). Subjectivity statements are provided in the next paragraph to help address the credibility of the research providing transparency on the author's pre-existing perspectives (Preissle, 2008; Peshking, 1988).

Kelsee Dale grew up in Oklahoma and is familiar with agricultural communities. Additionally, she has worked with a pet therapy program that has helped shape her perspective on mental health interventions. Quisto Settle grew up in Texas around agricultural communities. There is a history of suicide in his family that impacts his perspective on mental health research. Dwayne Cartmell grew up in Oklahoma and has been involved within Oklahoma agriculture throughout his life. He has been impacted by suicide within his family as well as within his workplace. A native of Oklahoma and raised on a cattle and hay operation, Shelly Legg has personal experience with suicidal issues as well as been impacted by suicide among friends and in the workplace.

Findings

There were two broad categories of themes. The first set of themes provided background on mental health for the intended audiences: causes of farm stress and mental health statistics. Stigma was a subtheme under farm stress. The second set of themes provided recommendations for the intended audiences: stress management, how to have uncomfortable conversations, warning signs, emotional intelligence, and support. Table 1 shows each category of source, the number of resources, and theme represented in the resource categories.

Table 1*Themes sorted by source type*

Source ^a	Number of Resource	Themes
Farm Bureau Video	6	Background on mental health Stress causes Stigma Mental health statistics Recommendations for the intended audiences Stress management Uncomfortable conversations Warning signs Emotional intelligence Support
Non-Video	12	Background on mental health Stress causes Mental health statistics Recommendations for the intended audiences Stress management Uncomfortable conversations Warning signs Emotional intelligence Support
Extension Video	7	Background on mental health Stress causes Stigma Mental health statistics Recommendations for the intended audiences Stress management Uncomfortable conversations Warning signs Emotional intelligence Support

Source	Number of Resource	Themes
Non-Video	17	Background on mental health Stress causes Stigma Mental health statistics Recommendations for the intended audiences Stress management Uncomfortable conversations Warning signs Emotional intelligence Support
Other	5	Background on mental health Stress causes Stigma Mental health statistics Recommendations for the intended audiences Warning signs Support

^aVideo resources included webinars and videos produced to be online. Non-video resources included materials like webpages and fact sheets.

Background on Mental Health

Causes of Farm Stress

The analysis identified several key factors contributing to farm stress, including financial concerns, social isolation, uncontrollable circumstances, and the challenges associated with family farms. All data acknowledged the stressful and dangerous nature associated with farming. Finances were the contributing factor to many of the stressors farmers faced because “there’s a lot of worry when it comes to finances because of how volatile our industry is,” according to an Illinois Farm Bureau member who spoke in the *Cultivating Healthy Minds* webinar. A OSU Extension Fact Sheet included the quote, “During times of financial stress, farmers may be faced with either significantly reducing the size of their operation, deciding to leave farming altogether, or otherwise making significant changes in their way of life.”

Social isolation was identified as a pervasive issue among farmers, exacerbated by the geographical location and long working hours. Isolation is an issue because “depression thrives on isolation,” according to an OSU professor, and “it is because of the isolation the individuals may develop negative beliefs about themselves.” Another OSU professor who spoke in the *Cultivating Healthy Minds* webinar said, “We tend to isolate ourselves.... We can be isolated physically, we can be isolated socially, and we can be isolated emotionally...[and] the cure for lots of mental health ills is connection.” An OSU professor further validated this point by saying the following:

Isolation is a key driver of a lot of mental health issues, and part of that for rural America is that we're just more spread out. We're doing our job as farmers and

ranchers. [We're] isolated from other people. It may just be us or it may just be us and our family members out there, but there's just fewer opportunities for us to connect with others. That's just kind of a natural function of our job.

Uncontrollable situations, such as natural disasters and economic downturns, were present in the lives of every farmer and are a significant source of stress. An OSU professor was quoted in an article from Morning Ag Clips saying, "Farmers and ranchers can do everything right and still not be guaranteed a product at the end," which was further discussed in an OSU Extension Fact Sheet that included the quote, "Economic conditions are unfavorable for farmers in Oklahoma, and natural disasters often directly affect farmers' livelihood."

The data implied non-farmers did not face the same threats farmers faced, such as natural disasters, pests, and unfavorable weather conditions. An OSU Marriage and Family Therapy master's student said in an OSU Extension webinar, "If you work in an office, a hailstorm probably doesn't seem that threatening to your livelihood, whereas, if you work on a farm, it could seem like it could do some damage to your wellbeing." The same student later said the following quote in an OSU Extension webinar:

For many farmers, life on the farm is defined by the ongoing, overwhelming fear of financial disaster that often follows years of hardship brought on by ongoing natural and/or human-made disasters, and these disasters have resulted in loss of harvest or livestock.

Generational farming emerged as a stressor across the data, discussing the emotional toll maintaining family legacies can have on farmers. An OSU Marriage and Family Therapy master's student said in an OSU Extension webinar, "A lot of families on farms experience foreclosures, and this can be not only devastating as a loss of your home, but it also can be the loss of something that's been in the family for generations," emphasizing how farming is a way of life and not just an occupation. This idea was also acknowledged by an OSU professor who said in an Oklahoma Farm Bureau webinar, "I've got the legacy of multiple generations of my family behind me to support me in this, and that's a positive thing, but by the same token, man, does that add a lot of stress."

Stigma

Stigma surrounding mental health was commonly discussed across the analyzed data. Stigma was referenced by almost all sources in the data, indicating a widespread reluctance to openly discuss mental health issues. An Oklahoma Farm Bureau member who shared her mental health testimony in a webinar said, "We realized that people don't talk about this. It's not that it's a taboo subject. It's just a hard subject." The content attributes stigma to multi-generational farming mindsets and a cultural urge to solve problems independently.

A clinical social worker said in the *Cultivating Healthy Minds* webinar, "there is such stigma about living in pain," emphasizing the reluctance within the agricultural industry to address mental health problems. An Illinois Farm Bureau member who shared her mental health struggles said, in the agricultural industry, "we've kind of been conditioned to not talk about that stuff," and an Illinois Farm Bureau member later expressed in the same webinar that "we all have to be in a lifestyle where mental health is something that becomes more comfortable with us." Stigma plays a role in whether farmers seek help or not; however, the analyzed content does

suggest this issue was slowly declining as mental health concerns became more prevalent in today's society.

While the resiliency of the agricultural community was often discussed and positively underlined throughout the data, it was clear within the data that a tough-it-out mentality can prevent individuals from seeking help. The content acknowledged the industry's reputation of resiliency and self-reliance, which often prioritizes work over health. An Oklahoma Farm Bureau member who shared her mental health struggles said, "We're known for being resilient, and we're known for being fighters, and we're able to put things aside and just get back to work." The idea of agricultural resilience was acknowledged again by an OSU professor who said the following in an OSU Extension video: "I think that some of the things that are our greatest strengths might also be the sources of our greatest vulnerabilities." Despite the emphasis on resilience, the data indicated open discussion could support and encourage others. A professor who spoke in an Oklahoma Farm Bureau webinar said the following:

I think that one of the critical reasons we really need to get better about sharing our experiences in agriculture is because we deny the people around us the benefit of knowing, "hey, there are struggles for everybody. It's never easy, [but] we made it through and you can make it through," I think that's huge for us, you know, we've got tremendous strength in our communities.

Mental Health Statistics

The incorporation of mental health statistics was common across all data, serving to validate and understand the need for change in mental health in the agricultural industry. Both national and state statistics emerged from the data, providing a quantitative insight to complement the qualitative findings in this analysis. Some of the national statistics were discussed by OSU Extension personnel during webinars, including "Because of the stigma surrounding mental health challenges, two in three people with a mental illness do not seek treatment," and "Nearly 70% of individuals can correctly identify depression, but many also don't know what to do about it."

State-specific statistics further underscored the severity of mental health challenges in Oklahoma. Oklahoma Farm Bureau members provided some of these statistics, including "Oklahoma ranks sixth in the country [for suicide]," and "Our suicide rate has increased since 2020, [and] rural areas have seen over a 27% increase." An OSU professor said the following in a webinar:

Our overall mental health ranking as a state is 49th, so it is kind of rough here in Oklahoma... One in five U.S. adults has experienced a mental health issue at some point in their life. There are about 30 of us on this webinar, which means there's probably about six of us that have really had to go through some sort of pretty serious mental health concern.

The quantitative data within the content suggested mental health was worsening, stigma played a role in help-seeking, people did not know what to do about depression, and Oklahoma was significantly suffering with mental health challenges. An Oklahoma professor who spoke in the *Cultivating Healthy Minds* webinar said, "I'm here to tell you as a researcher with access to a

lot of empirical data, we have a rural mental health crisis and it's worsening. It's not getting better."

Recommendations for the Intended Audiences

Stress Management

The analysis revealed a prevalent focus on stress management within the agricultural industry, with the word "stress" mentioned 623 times throughout the content. Each piece of analyzed content implied there was no one-size-fits-all cure available to minimize stress in farmers considering the uncontrollable circumstances associated with farming, but there were strategies to effectively manage stress. Mindfulness emerged as a prominent approach discussed by both Oklahoma Farm Bureau and OSU Extension, where its potential to enhance wellbeing and reduce stress were recognized. An OSU master's student who spoke in an OSU Extension webinar said, "Using other tools to manage feelings of distress, such as mindfulness, can help you to feel less threatened and driven by them and to engage in the things that matter most to you."

Acknowledging that most farmers might be skeptical about these stress management tools, a professor at OSU said farmers are not "self-care" kind of people, but the data suggested techniques such as these are needed to address ongoing stressors in the lives of farmers. An master's student speaking in an OSU Extension webinar said, "People just automatically think meditation, and then their mind goes all sorts of places, but it's an incredibly powerful tool. It's a very simple tool. It's something you have available wherever you are when things seem to be getting on top of you a little bit." This quote implies farmers have these readily available tools, and they need to use them.

An OSU Extension Fact Sheet included information surrounding meditation to manage stress. A step-by-step guide to meditation was introduced, acknowledging most farmers might struggle focusing when they first begin. The following quote was included in the Fact Sheet:

One meditation technique that can be useful for soothing anxiety and becoming more aware of and less driven by distressing thoughts and emotions involves a simple formula. To begin, sit in a comfortable place in an upright position and breathe slowly in through your nose and out through your mouth. Many people find that when doing this, their minds begin to race through a kaleidoscope of different images, thoughts, memories, and a variety of accompanying emotions. Especially when these are distressing, it may be tempting to try and force the thoughts from your mind, but doing so may actually make it more difficult to benefit from meditation. Rather than trying to force thoughts away, gently notice the thoughts that spring into your mind when you begin meditating and allow the thoughts to drift away when they seem ready to.

The analysis highlighted a strong emphasis on the importance of managing stress as a farmer with the content framing stress management as essential for maintaining farm productivity, relationships, and physical health. The agricultural industry is essentially a "small business," and stress management plays a critical role in the success of farming operations. The data suggested neglecting one's well-being could have negative effects on farm performance. An OSU professor who spoke in the *Cultivating Healthy Minds* webinar said the following:

You are the most important resource your farm has. If you don't take care of you, if you ignore all the warning lights, if you don't do regular maintenance stuff, your performance is either going to slowly degrade over time or you're going to blow up.

How to Have Uncomfortable Conversations

The analysis revealed a prevalent discomfort associated with discussing mental health concerns with someone with the data suggesting the inherent awkwardness of these conversations. An Illinois Farm Bureau member and counselor who spoke in the *Cultivating Healthy Minds* webinar said, "I'm going to tell you right now that the conversation is always awkward. That [feeling] doesn't go away."

Despite the discomfort of discussing mental health concerns, the data highlighted the importance of initiating these conversations because they can provide essential support to someone in need. An Illinois Farm Bureau member and counselor who spoke in the *Cultivating Healthy Minds* webinar said, "We need to not assume that someone else is having conversations with the person that we're worried about because that's when that person goes unnoticed and falls through the cracks," which was exemplified by an OSU professor who said in a later webinar, "Sometimes that's really all it takes – just to know that there is somebody else out there that cares enough to reach out to you."

The data provided guidance on how to have these conversations effectively, including specific things to say and do, what not to say or do, and how to assist someone dealing with suicide ideation. The data were consistent throughout, encouraging individuals to remain calm, judgment-free, and empathetic toward those dealing with mental health concerns. Active listening and understanding were key components of dealing with these conversations. A counselor who spoke in a Oklahoma Farm Bureau webinar said the following:

We're going to turn our brains off a little bit because we're not going to be focusing on what you're going to say next. We're going to be focusing on literally just listening to the words and also hearing the needs behind the words.

The same individual emphasized the importance of making someone who is struggling with mental health feel heard and understood. She said, "[What] we're saying [is], you're down in this deep dark hole, and I'm coming down here with you for a second so that I can understand what you're going through," and later said, "Really, what we need is to feel connected, to feel heard."

The data included information on how to bring up the topic of suicide, acknowledging "suicide is a word we hesitate to say or even think," but it's an issue that "disproportionately impacts our rural communities," according to an OSU Extension member. Both OSU Extension and Oklahoma Farm Bureau members clarified that asking someone if they are suicidal will not bring that idea into their mind if it was not already. A professor at OSU said in the *Cultivating Healthy Minds* webinar, "Research has shown time and again that [asking someone about suicidal thoughts] will not cause them to think about suicide if they weren't. In fact, that very intervention of asking about it may be exactly what they need to hear."

The data were consistent with instructions on what to do if someone is suicidal. In an Oklahoma Farm Bureau webinar, an OSU professor said, "[If] you encounter someone that's about to commit suicide or you think might be thinking about it, you cannot leave them alone

until you get help.” Other data underlined the importance of this idea, indicating that to be top priority when dealing with a suicidal person.

An Illinois Farm Bureau member who spoke in the *Cultivating Healthy Minds* webinar shared a story of a friend who had a loved one commit suicide. She discussed an idea not found anywhere else in the data, which was how to react to someone who lost a loved one by suicide. She said the following:

Even for me as a counselor, it is still uncomfortable to have conversations about tragedy...but what my friend said is, “I wish someone would get a little uncomfortable for me. I wish someone would have the bravery, the courage to put themselves in an uncomfortable position and talk with me about this.”

While the data provided insights into supporting individuals affected by suicide, it also acknowledged the complex dynamics of grief and the differing needs of individuals going through this.

Warning Signs

The analysis identified consistent warning signs of mental health issues, including mood changes, changes in sleeping habits, social isolation, and substance abuse. In the *Cultivating Healthy Minds* webinar, an OSU professor said, “If you notice a change in their sleeping or eating habits, [if] they’re sleeping a lot more or maybe they’re sleeping a lot less, that might be a sign of an anxiety issue.” In addition to this, isolation was discussed as a warning sign across various data. An OSU professor who spoke in a Oklahoma Farm Bureau webinar said the following:

You don’t go to stuff, you don’t make phone calls, you don’t reach out, and it can be hard to notice somebody who’s not there... so I’m not trying to tell you to keep tabs on your friends, but I’m kind of telling you to keep tabs on your friends. Look for the people that aren’t there or the people that have kind of gone mysteriously silent.

In an OSU Extension webinar, a professor at OSU explained how dramatic mood changes can be warning signs for suicide. She said the following:

If someone’s already been contemplating suicide and then they make that plan and they’re ready to go through with that plan, it actually lifts their spirits because they feel like they’re gonna finally get some relief of some sort... so sometimes a warning sign might be that they’re in a great mood out of the blue.

She then told the following story:

I had a client years ago who was very depressed for a long time, and then for a couple weeks, he actually just was kind of magically happy. It’s like he had just snapped out of his depression and his mood was just very bright and cheery. It was that dramatic mood change that actually was a warning sign that he was preparing to commit suicide.

Substance abuse emerged as a prevalent coping mechanism within the agricultural industry, with one Oklahoma Farm Bureau member saying, “We live in a culture of turning to drugs and turning to other substances,” which was further discussed by an OSU professor who said in an OSU Extension webinar, “One of the important things to understand about substance use disorders is that a lot of times substances are being utilized as a coping mechanism to either dull the anxiety or to avoid experiencing depressive symptomatology.” An OSU professor who spoke in a Oklahoma Farm Bureau webinar said, “[Oklahoma is] second nationally in terms of our rate of substance abuse disorders.... We’ve been very hard hit by the opioid epidemic but also several other substance-use issues, as well.”

Emotional Intelligence

The theme of emotional intelligence frequently emerged in the analyzed content, suggesting the importance of recognizing and understanding one’s emotions. This theme underscored the significance of acknowledging and comprehending emotional states, their impacts on thoughts and behaviors, and their role in interpersonal interactions. The data discussed how to acknowledge negative feelings, learn to view them as less threatening, and what to do with them that can promote the best outcome. An OSU master’s student speaking in a OSU Extension webinar said, “This is less about feeling less sad or less angry or less anxious and more about handling and understanding those emotions in a way that lets us intentionally choose what we’re going to do without being overwhelmed.”

The content suggested the practice of training your mind to receive negative thoughts differently can be beneficial when dealing with mental health struggles. A master’s student at OSU said in an OSU Extension webinar, “If we can learn to distance ourselves and see those thoughts for what they are, we can get greater control of them,” and later said, “As you are able to put words to those emotions, all of a sudden they become understandable.” The content centered around the idea that negative thoughts are not bad, but what one does with them can be. An OSU master’s student said the following in an OSU Extension video:

If you can find a way to kind of refocus yourself and acknowledge those thoughts, they’re not inherently bad. We talk about our emotions and we think, “oh, I got mad, that can’t be a good thing,” or “I was sad, that can’t be good,” but the emotions themselves don’t have inherent value. It’s what you do with them that matters.

An emphasis was placed on early recognition of stress, and OSU Extension had several pieces of content pertaining to stress management in relationships. In an OSU Extension webinar, an OSU master’s student said, “Just being able to mindfully be aware of what you’re feeling, what you’re thinking, and what your body is telling you, where you’re tense, can be the difference in being reactive and being intentional.” This point was discussed again by a clinical social worker who said the following in the *Cultivating Healthy Minds* webinar:

When we have stress, we have to recognize it. If we can recognize it early, it goes a long way in preventing it. I promise your family wants you to be proactive with stress instead of reactive with your stress because it probably frustrates the fire out of them and they don’t know how to approach it.

Proactive approaches to stress management were urged, and one OSU Extension member said, “I want to challenge everybody to really do some introspection about their own state of mental health and how they are dealing with stress,” suggesting self-reflection and ongoing efforts to manage stress are always necessary.

Support

The analysis highlighted the role of various support systems, including family, friends, community, peers, and professionals, who all play a role in helping others cope with and overcome mental health issues. All data agreed that support is a tool necessary in healing and all people benefit from receiving it. The theme of support systems resonates deeply with the discussion of isolation as a factor of farm stress. The analysis highlights the critical role of various support networks in mitigating the effects of isolation on mental well-being within agricultural communities. By emphasizing the importance of quality connection and emotional support, the data suggests meaningful relationships can serve as a buffer against the impacts of isolation. This can cultivate a sense of belonging and promote resilience, ultimately contributing to the overall mental health and well-being of agriculturalists facing the isolating realities of farm stress. An OSU Extension Fact Sheet contained the quote, “It is during [hard] times that the support of friends, family and acquaintances is needed most. In fact, it is essential to recovery,” and later said, “Genuinely connecting with others is key.” The Fact Sheet contained information on how to provide support while not overstepping boundaries. It included the following quote:

Usually, the most important support is emotional support involving empathy, encouragement, and reassurance that you are there with them in their difficulty. Afterward, and only if it is requested, comes practical support in the form of advice, problem-solving, and providing more information.

The data suggested anyone can offer support even if they do not feel qualified to help someone in need. A counselor who spoke in the *Cultivating Healthy Minds* webinar said, “You don’t have to be a doctor or therapist to show someone that you care.” In a later webinar of the same campaign, an OSU professor said, “Remember, it doesn’t matter how the person got there. That’s where they are, so we got to help them where they’re at and it requires us all doing something about it.”

Testimonials from individuals who struggled with mental health and relied on their support system highlighted the need to lean on others during hard times. One Oklahoma Farm Bureau member who discussed his mental health struggles said, “From my own experience, I can say the first step is just find the person closest to you if you’re struggling and just say ‘Hey, I’m not doing too well. Let me explain this,’” and a different member who had suffered child loss said, “Without our faith, our family, our Farm Bureau family, and our work families, I don’t know how we would have gotten through that.”

An OSU professor said in an OSU Extension webinar, “Our close relationships are our most important source of support,” further suggesting how important support systems are. A clinical social worker said in the *Cultivating Healthy Minds* webinar used humor when discussing this topic and said, “Sometimes when you’re in that much pain, you have to reach out and find support. We are not islanders. We literally live in the center of the country.”

In an OSU Extension webinar, an OSU master’s student suggested farmers rely on each other for support because they share many of the same struggles and concerns, which can relieve some of the stress they are experiencing. The following was said in the webinar:

Find a group of people who can really get you and who can hear your stories of pressure. There are certainly lots of things that farmers have in common, and there's lots of difficulties that we share, but your story is unique. You may find that as you have a community that you can talk to, sharing those difficulties of your life can help ease some of the pressure you experience.

Discussion

The first category of themes provided background information on mental health and largely discussed causes of farm stress, such as financial concerns, social isolation, uncontrollable circumstances, and the challenges associated with family farms. Isolation (Gregoire, 2002; Hendrickson, 2018; Nye et al., 2023), financial concerns (Gilliland, 2022), and dealing with situations outside of their control (Braun, 2019) were most prevalent key factors in the resources available.

The inclusion of mental health statistics across the data underscored the severity of mental health challenges within agricultural communities. Schrimmer et al. (2015) found farmers were at a higher risk of mental health disorders and suicide as compared to nonfarmers, which underlined the critical need for tailored resources and interventions for this community.

While the first set of themes laid a foundation illustrating the severity and nature of mental in rural and agricultural communities, the second set of themes focused on recommended actions to address the problem. Stress management tools and techniques were discussed consistently throughout the data, suggesting farmers should adopt these strategies. This aligned with recommendations about practicing stress management to prevent mental health conditions (Rudolphi, 2020). Stigma was acknowledged as a barrier to help-seeking behavior within agricultural communities, which was consistent with literature on farmer mental health (Hagen et al., 2022; Rudolphi & Barnes, 2020).

Another one of the actions to address mental health issues presented in the literature was how to have uncomfortable conversations within Oklahoma agricultural communities. The data discussed how open dialogue was essential to promoting help-seeking behavior and providing quality support. The data included specific strategies for initiating and navigating conversations about mental health, including active listening, empathy, and non-judgmental communication. Most strategies discussed in the data were informal ways to start the conversation. Key factors for effective mental health communication included validating emotions, expressing concern, and offering assistance without overstepping boundaries. The data encouraged empathy and compassion when engaging with someone experiencing mental health challenges as well as respecting their autonomy in decision-making. This was consistent with past research showing that farmers preferred informal spaces for emotional support and were more receptive when they felt understood (Nye et al., 2023).

The analysis revealed a significant theme regarding the identification of poor mental health warning signs. The data included several warning signs, including changes in mood, sleeping habits, isolation, and substance abuse. The data highlighted the need for attentiveness in identifying signs of social withdrawal and loneliness because prolonged isolation could exacerbate mental health issues and increase suicide risk, as discussed in previous literature examining suicide risk (Gallagher & Sheehy, 1994; Page & Fragar, 2002). Substance abuse was identified as a coping mechanism for some farmers across the analyzed content, mirroring previous research (Roy et al., 2017). The findings suggested education for recognizing and

responding to warning signs was crucial for early intervention and prevention of mental health crises in agricultural communities.

The data illustrated the significance of recognizing and comprehending one's emotional states as well as their impact on thoughts, behaviors, and interpersonal interactions. The findings suggested practicing emotional intelligence can be a valuable coping mechanism for farmers dealing with mental health issues. By acknowledging and understanding negative feelings, the data suggested individuals could better cope with stressors, which aligned with a study by Wilson and Saklofske (2018) who found savoring, which is the process of attending to positive experiences, was a mediator between resilience and mental health. The data provided practical strategies for enhancing emotional intelligence, such as mindfulness and meditation. The findings suggested encouraging farmers to observe their thoughts and emotions could empower them to respond to challenges with intentionality rather than being overwhelmed by negative feelings.

The study underscored the critical role of support in fostering improved mental health outcomes within Oklahoma agricultural communities, aligning with existing research findings (Deegan & Dunne, 2022; Liang et al., 2022; Riethmuller et al., 2023). The resources highlighted the resilience of members of the agricultural community while also illustrating that resilience sometimes enabled a detrimental level of self-reliance, which has been noted by Cole and Bondy (2020). This perspective highlighted the complexities between resilience, support networks, and mental health outcomes in agricultural communities.

As it relates to social marketing, the resources assessed were specific for rural, agriculturalists audiences. Many of the resources were using university personnel, including Cooperative Extension, which was in line with social marketing typically being grounded in research (Evans & Hastings, 2008). This study did not assess an individual social marketing campaign, so there are a wider variety of behaviors addressed than would generally be recommended for a single campaign. As such, a study focusing on a more specific effort may have different results.

Recommendations

For practitioners looking to engage in providing mental health resources for agriculturalists, the biggest recommendation is to create those resources because this study indicates a limited number of parties are creating resources for farmers and ranchers. Extension and Farm Bureau were responsible for the majority of resources and have the ability to reach many producers, but they are likely to miss some producer populations. It is also important to note that the most comprehensive representation of themes came from the video resources, and a wider variety of resources will be necessary when video is not preferred or not viable, such as rural areas that lack broadband access.

For those looking to have a more sustained impact, the social marketing perspective would lead to a more limited scope of behaviors to ensure effectiveness of the campaign. By targeting specific behaviors, you can ensure individuals see the same message multiple times to help ensure impact. And while it appears that resources are increasing, those resources alone will never be enough for all individuals. Ultimately some individuals will need professional intervention, and resources should encourage people to seek help when needed.

A key takeaway from this research was that much of the mental health information targeting agriculturalists in the state came from government sources. While that can be

beneficial, public funding is being cut in a variety of areas (Mann, 2025). As such, work is needed to either increase the number of resources developed by the private sector or to ensure that public funding remains available for this kind of programming in the future.

To advance the understanding of mental health resources available to farmers and ranchers, several research recommendations emerged from this study. Conducting interviews with Oklahoma farmers presents an opportunity to delve into their perspectives regarding the accessibility, effectiveness, and utilization of existing mental health resources. By engaging farmers in qualitative discussions, insights into their experiences can be examined, including barriers encountered and suggestions for improvement. This will help in tailoring communication messages for the target audience. Additionally, quantitative research on mental health resource effectiveness is essential to evaluate the impact of mental health interventions on Oklahoma farmers' wellbeing. This could be done via surveys with agriculturalists, but public data on mental health outcomes in rural areas can also be evaluated to assess real-world impacts. While the current work illustrates what is happening, more research is needed to understand which efforts are most effective.

Lastly, a national assessment is needed for understanding the broader landscape of mental health resources available to farmers across the country. Comparing findings between states and regions could inform best practices, challenges, and opportunities for interventions and policy recommendations at both local and national levels. For example, in Florida the Mind Your Melon campaign has been implemented during the past few years and may lend insights for other states (Mind Your Melon, 2025).

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