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The Farm Stress Production Meeting: An Innovative Extension Program Addressing Farmer Stress

Abstract

Farmers experience high levels of stress and suicide risk, complicated by strong values of independence and stoicism. In addition, farmer time demands make it unlikely that many will attend stress management programming. We have developed an innovative Extension program, The Farm Stress Production Meeting (FSPM), infusing conversations on stress into existing commodity production meetings to provide stress management skills to farmers in acceptable and time-efficient ways. Mixed-method evaluation of FSPM showed significant positive change in farmer thinking about stress management and increased openness to discussing stress. FSPM holds promise as an accessible, acceptable, and effective intervention to help farmers manage stress.

Keywords: farmer, mental health, stress, stress management

Introduction

Farmer stress

Farmers experience high levels of stress and have among the highest suicide rate of any profession (Peterson et al., 2020). Multiple stressors, including extreme and damaging weather, input costs, commodity prices, potential for accidents, loans and financial risks, and complex Federal policies and programs, are common; the resulting stress can result in poor physical and emotional health (Chengage et al., 2021; Polanco-Roman et al., 2016;).

Compounding these stressors are farmers' strong values of independence and stoicism, where discussing stress and asking for support can be seen as weaknesses (Morning Consult, 2021). This presents a challenge. Given these values, and considering how precious a commodity time is for farmers, it is unlikely that large numbers of farmers will participate in programming specifically on stress or mental health.

Cooperative Extension offices are trusted by farmers, and Extension has the unique opportunity to provide vital stress management education and support to farmers. However, this education and support must be done in ways that are both acceptable and accessible to farmers. In Georgia, we have developed an innovative program model, infusing conversations on stress management into existing commodity production meetings to provide education and support to farmers under stress in an acceptable way without making additional demands on their time.

The farm stress production meeting model

The farm stress production meeting (FSPM) model folds discussion about farm stress into existing production meetings attended by farmers. An area agent with training in behavioral health engages in a dialogue with farmers at the start of the meeting, talking about stress and its effects, asking what participants' stressors are and how they cope with stress, and providing some additional ideas for stress management. The conversation lasts about ten minutes. In addition, a free blood pressure screening is

provided before, during, and after the meeting, and the medical personnel engage farmers in conversation about the link between stress and high blood pressure. Finally, a packet of information on wellbeing and stress management is provided at every seat during the meeting.

Initial pilots of the FSPM in 2020 and 2022 were promising, with over 650 farmers participating in nine FSPMs and 53% of participants taking home packets of information (Scheyett, et al., in press). In this mixed-method study we moved beyond the pilot to examine the impact of FSPM. We evaluated 10 FSPM events by surveying participant farmers to measure shifts in attitude towards and commitment to stress management behaviors, using a Stages of Change (Prochaska et al., 1992) framework. We also evaluated impact through qualitative interviews with the Extension agents and Extension specialist who had attended these FSPMs.

Methods

Participants

Farmer participants were attendees at ten production meetings held by Extension offices in ten counties in South Georgia (N=482). In addition, 13 Extension agents and 5 Extension specialists who had participated in between one and five of these meetings were interviewed.

Data collection

Quantitative data

Quantitative data were collected using a researcher-designed pre/post survey grounded in the Stages of Change model (Prochaska et al., 1992) to measure the impact of the FSPM on participant thoughts about changing behaviors and managing their stress. In this model, it is proposed that people go through a number of stages before actually changing a behavior. They begin in Precontemplation, where they are not yet

considering the need for a change; move to Contemplation, where they are aware of a need for change; to Preparation, where they are thinking about ways to engage in behavior change; to Action, where they engage in the change behavior.

Using this model, we asked participants to complete a written survey with the following pre/post questions:

Before hearing the speaker at this meeting

___ I never thought about needing to manage my stress (1)

___ I was aware of the importance of recognizing my stress and stress management (2)

___ I thought about needing to manage my stress, but hadn't done anything much about it (3)

___ I actively used coping strategies to manage my stress (4)

After hearing the speaker at this meeting

___ I don't think that stress management is important for me (1)

___ I am now aware of the importance of recognizing my stress and stress management, though I wasn't before this meeting (2)

___ I have new ideas for ways to manage my stress (3)

___ I am committed to actively using coping strategies to manage my stress (4)

317 participants completed the survey for a response rate of 65.8%

Qualitative data

One of the authors interviewed 13 Extension Agents and 5 Extension Specialists who had attended between 1 and 5 FSPM, asking for their observations about how farmers discussed stress prior to the FSPM, how they responded to the stress discussion during the FSPM, and any changes they had noted after the FSPM. Agents and Specialists were not informed that they would be interviewed about the program prior to attending,

to ensure this would not influence their experience. All interviews were recorded and transcribed.

Data analysis

Survey responses were scored 1 to 4, with 1 being the statement with the lowest engagement with stress management (scores are in parentheses after each statement). Quantitative data were entered and checked for accuracy, then analyzed using a 2-tailed paired t-test. Analysis was completed using statistical software package IBM SPSS Statistics, Version 29.0. Two authors completed qualitative data analysis using a thematic analysis (Thomas and Harden, 2008) Two authors generated line-by-line coding, then constructed initial descriptive themes, reviewing and collapsing them into larger named analytic themes. Our initial inter-rater reliability was moderate, with 71% consensus and Cohen's kappa of 0.74; areas of disagreement were discussed until we came to consensus.

Results

FSPM, farmers, and stress management

Our survey revealed that prior to the FSPM most farmers were in Precontemplation or Contemplation stages regarding stress management, with only 15% reporting they actively used coping strategies to manage stress. After the FSPM these attitudes shifted, with most farmers reporting new ideas to manage stress (40%) or commitment to stress management (29%). These results are summarized in Table 1.

Table 1. Participant survey responses

Before Hearing the Speaker:	N	%	After Hearing the Speaker:	N	%
I never thought about needing to manage my stress	67	21%	I don't think that stress management is important for me	16	5%
I was aware of the importance of recognizing my stress and stress management	123	39%	I am now aware of the importance of recognizing my stress and stress management, though I wasn't before this meeting	79	25%
I thought about needing to manage my stress, but hadn't done anything much about it	76	24%	I have new ideas for ways to manage my stress	127	40%
I actively used coping strategies to manage my stress	48	15%	I am committed to actively using coping strategies to manage my stress	92	29%
TOTAL	314		TOTAL	314	

The average pre-speaker score was 2.34 (SD=.98) and the post-speaker score was 2.94 (SD=.87). The paired t-test revealed that this 0.6 score shift was statistically significant, $t(313)=10$, $p<.001$, with a medium effect size (0.56).

Agent and specialist observations

Interviews with agents and specialists revealed several themes regarding the impact of FSPM:

- 1) How farmers talked about stress prior to FSPM;
- 2) Farmer responses during the FSPM;
- 3) Impact of FSPM;
- 4) FSPM impact on agents;
- 5) Agents see continued need; and
- 6) Agents' reluctance to talk about stress.

Farmers' talk about stress

In general, interviewees reported that most farmers were reluctant to talk about stress, with 12 participants discussing this theme. Some told us that farmers would discuss stressors such as weather and prices, but not their feelings about it, like the one interviewee who reported "I think that the talk of stress is not really verbally said as, "Man, I'm stressed," kind of deal. But you see the ramifications of it. I mean, between environmental impact, some crazy weather, and, I guess, financial concerns." One of the biggest reasons participants cited for reluctance to talk about stress was stigma. One noted "there's the stigma around mental health and things like that and... so they're, 'hey, if you can't pull yourself up by your bootstraps, then something's wrong' and there's definitely hesitancy."

Farmers' responses during FSPM

Despite reporting farmer general reluctance to discuss stress, 11 participants discussed farmers' responses to the FSPM and all reported that the conversation was well-received. They described farmers as warming to the topic, becoming comfortable and engaging in discussion. As one interviewee described "I would say maybe it broke the ice for normalizing talking about it [stress] a little bit more." A few noted that even if farmers did not actively participate in the discussion, they received information that they might need, both from the speaker and from the packet of materials they took home. One specialist summarized this by saying "But what does happen is that they do listen. They are there. And there are some who won't say it so much in the audience, but they need that information."

Impact of FSPM

When asked if they had noticed any changes as a result of the FSPM, 13 participants provided specific examples of the impact they had seen. Overall, the biggest impact was simply the increased openness farmers had in discussing stress. In some cases, farmers had specifically said that it was a needed conversation or agents had noticed that more farmers saw the importance of the topic. One stated

“I think there's a lot of people that see the importance of it now. And there's probably more people that are willing to admit than not that they know somebody who took their own life as a result of the stress that they were facing, kind of on the farm kind of thing. So, I think there's definitely more conversations happening.”

Several participants noted that farmers specifically referred to the content in a later conversation. One agent said “I've had a couple of conversations for other things, and then [the farmer will say], ‘Well, that speaker you had at the cotton meeting, it just gets to you some of that stuff.’” The agent then followed this statement with a conversation about stress management strategies. One agent reported hearing about the FSPM from several farmers’ wives, and stated

“And then I ran into their wives somewhere, and they were like, “Yeah, they [farmers] were talking about the mental health thing, and I think that's really important.” And it got them kind of talking about their experience and that it made them feel good that there was someone there to talk to and that there was resources for it.”

Perhaps the most dramatic example of the FSPM impact was provided by one agent who received a contact from a grower after the meeting.

He texted, “Hey, can I call, or can you call me?” But yeah. So, I called him. And we were just talking about just typical work stuff. Well, then just all of a sudden, just out of the blue, he just kind of went off on a tangent and was like...”Man, some days I just can't do it. I just don't know if I can do this anymore...”

The agent was able to listen, let him know that Extension had information and resources for him, and encourage the grower to speak with a counselor; the grower expressed appreciation and a follow-up conversation with a counselor occurred.

FSPM impact on agents

In addition to the impact on farmers, nine interviewees discussed the impact of the FSPM on themselves and/or other agents. Several reported learning that their preconceived notions about whether the farmers would listen to a discussion on stress were incorrect, like the agent who stated ruefully

“To be honest, when they first started talking about stress at meetings, I’m like, “You’ve got three minutes to kind of talk it over. You need to keep it under three.” After the first one, I’m like, “I cut you short. You kept their attention. This is not near as bad as I thought it was going to be.”

Other participants reported that they and their colleagues who had been involved in FSPMs had gained understanding of stress and mental health issues themselves. This was eloquently summarized by one specialist who said

“If you want to talk about impact that I’ve been aware of, I think that the most obvious impact that I can document is that Extension and our agents are aware of the issues. They’re aware of resources that are available. And it’s kind of like training the trainer with their grower community. They kind of know what to look for. They kind of know that if someone did come-- if a problem developed that they would know, ‘Hey, I’ve got these resources.’”

Agents see continued need

While nearly all interviewees reported positive impacts of the FSPM, six of them discussed a need for continued or expanded efforts. Two noted that production meetings are usually only once a year, and, as one stated “I think what [area agent] is doing is so important, and she should be going to as many counties that she can possibly get into. Not just during the production meeting season, though. Really any time.” One agent discussed how important it would be to be persistent with a message about stress management, since farmers are so reluctant to discuss the topic, while another agent hoped that the topic could be discussed in more depth over time. These agents also talked about how important the folder of materials was, and how they hoped these materials could be expanded as well.

Agents’ reluctance to talk about stress

A small but vocal group of three agents expressed concern and hesitation about discussing stress with their farmers. One agent was very concerned about confidentiality in his community, something several agents had discussed as part of the stigma and reluctance farmers have when discussing stress. This agent said

“If somebody has a problem and comes to me and it's not like I'm just going to tell them, "No, go talk to somebody else." But personally, I think that I live in my county, I kind of don't want to know some of the stuff if it's serious. I say that because if they told me and then if they're like their wife told somebody else and somebody else then it got out to county they might get mad at me. Does that all makes sense?”

Other concerns centered around not being trained in mental health, where one reflected “I’m not trained in counseling of how to handle this.” and another stated “I’m not a therapist...it doesn’t seem like they're [someone the agent is concerned about] quite right.” ...But that's as far as we get. We don't really know what to do beyond that.”

Discussion

Our findings from this evaluation suggest that the FSPM may be an effective intervention to teach farmers about the impacts of stress and stress management. Our data suggests that this dialogue with accompanying materials, embedded in an existing Extension meeting, can have a positive impact in how farmers think about their stress and stress management. This impact, as reported by agents and specialists, can continue well after the FSPM concludes. In addition, the FSPM can educate Extension agents and specialists about the topics of stress, mental health, and resources available to support the farmers they serve. However, Extension agents in counties providing FSPM must be provided with education and support to ensure they are comfortable with discussing the topic in a community context where confidentiality is very important and where stigma towards admitting “weakness” such as stress or emotional distress can be high.

Study limitations

Though promising, we need to acknowledge the limitations of this evaluation. First, retrospective reporting of thoughts and opinions, as done in our survey, runs the risk of memory bias and social desirability bias. In addition, this survey measures thoughts, not actual behavior changes. Given that the goal is to help farmers learn and practice good

stress management skills to promote their physical and emotional health, measuring thoughts and not behaviors is a limitation. Also, this study is cross-sectional and we therefore have little indication that any impacts of the FSPM last over time. Finally, qualitative data regarding the impacts of FSPMs relies on the observation of Extension agents and specialists, who may not see changes that farmers make as a result of the intervention.

Next steps

As we proceed with implementation of the FSPMs, we need to take several additional important steps. First, a more rigorous survey process for FSPM participants, with follow-up at 3 and 6 months, will help us better understand the effects of the FSPM over time. In these follow-up surveys we can ask participants for examples of behavior changes they have made to manage stress, which will provide information beyond changes in thoughts that occur during the FSPM. We can also ask survey participants what additional information they would like to have about stress and stress management, and how they would like this information provided (meetings, websites, podcasts, reading material, etc.)

Our qualitative findings revealed that a small, but important subset of Extension agents expressed discomfort discussing stress and emotional concerns with their farmers, and that an additional subset of agents wanted more information about this topic than had been provided to them. It will be important for us to develop training and resource materials for agents to increase their comfort level and sense of competency in discussing stress and guiding farmers to information and formal services they may need.

Finally, to scale and replicate the FSPM we need to develop a training manual for agents who would like to be FSPM facilitators. In addition, we should consider an ongoing coaching group for new facilitators, where they can discuss issues and challenges that may arise during their FSPMs with our more seasoned area agent and other senior Extension health specialists.

Conclusions

The FSPM holds promise as an accessible, acceptable, and effective intervention to help farmers manage their stress and build positive coping skills. By providing an opportunity for normalization and candid discussion about stress and stress management to farmers, Extension can reduce the risk of stress-related harms and promote the wellbeing of the farmers we serve.

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Conflicts of Interest

We have no known conflicts of interest to disclose.

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