

**Extension Agents' Perceptions of Early Intervention and Suicide
Prevention Resources for Farmers: A Pilot Study**

Kathryn Grant
162 Beauty Spot Rd.
Bennettsville, SC 29512
843-862-8110
kogrant@g.clemson.edu

K. Dale Layfield
246 McAdams Hall
Clemson University
Clemson, SC 29634
864-656-5676
dlayfie@clemson.edu

Preston Byrd
253 McAdams Hall
Clemson University
Clemson, SC 29634
864-656-5675
apbyrd@clemson.edu

Richelle Miller Kleman
126 Poole Agricultural Center
Clemson, SC 29634
864-656-2596
richelm@clemson.edu

Extension Agents' Perceptions of Early Intervention and Suicide Prevention Resources for Farmers: A Pilot Study

Introduction/Need for Research

Farming is a very challenging and hazardous occupation that endures great variability and many uncontrollable factors. The risks and occupational stressors involved in farming are unique to farming when compared to other non-farming occupations. For the purpose of this study, a *stressor* is operationally defining as a stimulus such as weather, market prices or debt that farmers experience, including environmental conditions, stimulus, or events which can trigger stress among farmers or community members (Welke, 2004).

Many studies have identified farm stressors and the significant impacts they have affect the mental and physical health of farmers. Stressors include: the weather, concern over the future of the farm, market prices, health care costs, problems with crops and livestock, outsiders not understanding farmers, problems with machinery (Freeman, Schwab, & Jiang, 2008; Kearney, Rafferty, Hendricks, Allen, & Tutor-Marcom, 2014). Farmers are at a heightened risk for suicide, as farm stressors steadily increase (Scheyett, Bayakly, & Whitaker, 2019).

Numerous studies have been conducted discussing suicide, depression, injuries and stressors regarding farmers. The need for support, education, intervention, and stress management strategies have been suggested to help with this growing crisis (Ringgenberg, Peek-Asa, Donham, & Ramirez, 2018; Scheyett, Bayakly, & Whitaker, 2019).

However, there is a lack of research regarding awareness and knowledge of stress indicators, early intervention, and suicide prevention resources provided for cooperative extension agents that maintain a strong rapport in rural communities. One aspect that has not been studied, is if cooperative extension agents are adequately trained to recognize stress factors and other indicators leading to negative impacts among farmers.

Conceptual or Theoretical Framework

The theoretical frame for this study is supported by Rogers' (2003) theory of diffusion. Specifically, this study focuses on the first stage of Rogers' Innovation-Decision Process, knowledge. Rogers surmises that an innovation advances through five stages in the innovation-decision process, resulting in the confirmation stage, in which the individual promotes the innovation to others. At the knowledge stage, an individual is aware of an innovation and has an "understanding of how it functions" (Rogers, 2003, p. 169). The awareness of cooperative extension agents of the stress factors experienced by farmers and the recommended support tools for this stress is critical to identifying the need among farmers.

Methodology

The purpose of this study was to obtain South Carolina's Cooperative Extension Agent's awareness of suicide prevention resources and practices, along with the likelihood they will take advantage of available programs. The objectives of this study include: 1) Assess South Carolina's Cooperative Extension Agents' knowledge of stress indicators that lead to depression or suicide, 2) Evaluate South Carolina's Cooperative Extension Agents knowledge of suicide prevention resources, and 3) Identify the willingness of South Carolina's Cooperative Extension Agents to participate in professional training for identification of key stressors and resources available for suicide prevention.

The population consisted of all cooperative extension agents in South Carolina (N=133). The list of cooperative extension agents was obtained from the state director of extension at Clemson University. A researcher-based survey was developed to measure 1) the awareness level of identified farm stressors, and 2) agents' awareness of suicidal warning signs. Both series of questions were measured using a five-point, Likert-type scale with Qualtrics. Scales ranged from 1 (*not at all aware*) to 5 (*extremely aware*). Participants were also asked to indicate if they have observed or discussed certain stressors since January 2018 by indicating yes, no, or unsure and questions regarding their willingness to participate in training and topics suggested. Demographic information was also collected (years of service, age, gender, education, race and frequency of interaction with farmers). Results were summarized using descriptive statistics which included means, percent, and standard deviations.

Results/Findings

A total of 109 South Carolina cooperative extension agents responded to the survey, resulting in an 82% (N=133) return rate. More than one-half of the respondents (n=50, 51%) worked 1-5 years with the cooperative extension service, followed by 16.1% having between 11-16 years. A total of 53 (55%) of respondents were female and 45 (45%) were male. The majority of South Carolina's cooperative extension agents that responded to the survey, interact with farmers on a weekly basis (64.2%), followed by monthly interactions (15.3%). Cooperative extension agents identified the top 5 stressors for farmers: 1) unpredictable/bad weather 2) damage caused to the farm due to rain, floods, drought, etc. 3) concern about the future of the farm 4) immense debt load 5) problems with livestock or crops. The top five warning signs observed by extension agents included 1) Anxiety, agitation, unable to sleep, 2) Feeling trapped, like there's no way out, 3) Seasonal variations in workload, 4) Hopelessness, and 5) Increasing alcohol or drug use.

Conclusions

Based on the findings, South Carolina's Cooperative Extension Agents have either observed or discussed both farm stressors and warning signs of suicide since January 2018. Three of the top five stressors identified by farmers are factors of which the farmers have no control over or cannot change. Many of the cooperative extension agents have observed multiple warning signs in farmers that lead to stress issues. Availability of training on issues related to stressors or suicide was confirmed by eight participants; 48 participants indicated they are willing to attend training regarding stressors or suicide prevention training.

Implications/Recommendations/Impact on Profession

Based on the findings, it is recommended that South Carolina's Cooperative Extension Agents participate in professional training on how to identify key stressors and educate them on local resources on managing stress factors available for farmers. Leaders of organizations and programs should consider collaborating with cooperative extension agents to provide stress management sessions and support among farmers. A replication of this study conducted in the southeast region of the United States would allow for an assessment of knowledge of farm stressors and suicide warnings among cooperative extension agents located in different geographical regions with various farming practices and demographics. Future research is needed among cooperative extension agents using specific educational materials and training, in order to assess the impacts of providing training.

References

- Freeman, S.A., Schwab, C.V., & Jiang, Q. (2008). Quantifying stressors among Iowa farmers. *Journal of agricultural safety and health*, 14(4), 431-439. doi: 10.13031/2013.25280
- Kearney, G. D., Rafferty, A. P., Hendricks, L. R., Allen, D. L., & Tutor-Marcom, R. (2014). A cross-sectional study of stressors among farmers in Eastern North Carolina. *North Carolina Medical Journal*, 75(6), 384–392. doi: 10.18043/nm.75.6.384
- Ringgenberg, W., Peek-Asa, C., Donham, K., & Ramirez, M. (2018). Trends and characteristics of occupational suicide and homicide in farmers and agriculture workers, 1992-2010. *The Journal of Rural Health*, 34(3), 246-253. doi: 10.17077/etd.3k25y6k2
- Rogers, E. M. (2003). *Diffusion of innovations*. New York: Free Press.
- Scheyett, A., Bayakly, R., & Whitaker, M. (2019). Characteristics and contextual stressors in farmer and agricultural worker suicides in Georgia from 2008–2015. *Journal of Rural Mental Health*, 43(2-3), 61-72. doi: 10.1037/rmh0000114
- Welke, C.K. (2004). *Farm/ranch stressors and the distress and job satisfaction of farm family members: The buffering effects of perceived social support*. Retrieved from ProQuest Dissertations & Theses Global. (UMI No. 3138442)