

## Mitigating the Negative Health Effects from Stress - A Social Network Analysis

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**Abstract :** Production agriculture (farming) is a physically, emotionally, and cognitively stressful occupation, where workers have little control over the stressors that impact both their work and their lives. In an occupation already rife with hazards, these occupational-related stressors have been shown to increase farm workers' risks for illness, injury, disability, and death associated with their work. Despite efforts to mitigate the negative health effects from occupational-related stress (ORS) and to promote health and well-being (HWB) among farmers in the US, marked improvements have not been attained. Social support accessed through social networks has been shown to buffer against the negative health effects from stress, yet no studies have directly examined these relationships among farmers. The purpose of this study was to use social network analysis to explore the social networks of farm owner-operators and the social supports available to them for mitigating the negative health effects of ORS. A convenience sample of 71 farm owner-operators from a Midwestern County in the US completed and returned a mailed survey (55.5% response rate) that solicited information about their social networks related to ORS. Farmers reported an average of 2.4 individuals in their personal networks and higher levels of comfort discussing ORS with female network members. Farmers also identified few connections (3.4% density) and indicated low comfort with members of affiliation networks specific to ORS. Findings from this study highlighted that farmers accessed different social networks and resources for their personal HWB than for issues related to occupational(farm-related) health and safety. In addition, farmers' social networks for personal HWB were smaller, with different relational characteristics than reported in studies of farmers' social networks related to occupational health and safety. Collectively, these findings suggest that farmers conceptualize personal HWB differently than farm health and safety. Therefore, the same research approaches and targets that guide occupational health and safety research may not be appropriate for personal HWB for farmers. Interventions and programming targeting ORS and HWB have largely been offered through the same platforms or mechanisms as occupational health and safety programs. This may be attributed to the significant overlap between the farm as a family business and place of residence, or that ORS stems from farm-related issues. However, these assumptions translated to health research of farmers and farm families from the occupational health and safety literature have not been directly studied or challenged. This may explain why past interventions have not been effective at improving health outcomes for farmers and farm families. A close examination of findings from this study raises important questions for researchers who study agricultural health. Findings from this study have significant implications for future research agendas focused on addressing ORS, HWB, and health disparities for farmers and farm families.

**Keywords :** agricultural health, occupational-related stress, social networks, well-being

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