

An Overview of Mental Health Research in Agricultural Education

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Mental illness and risks associated with poor mental health are of growing national concern in agriculture and education. In a 2020 Center for Disease Control and Prevention (CDC) report, Petersen et al. revealed the agriculture, forestry, fishing, and hunting industry was one of five major occupational groups experiencing significantly higher suicide rates. While suicide risk among educators is lower, research indicates teachers experience increased risk of mental health disorders, job stress, and burnout (Li, 2020). These effects have been magnified following the COVID-19 pandemic. According to the CDC Foundation (2021), a combined 64% of teachers self-reported symptoms consistent with clinical depression or anxiety and 53% consider leaving the profession more now than before the pandemic. These phenomena have been lightly explored in the literature among agricultural educators. Research by Shoulders et al. (2021) indicated agricultural educators experienced symptoms of work-related stress including fatigue, worrying, and forgetfulness following the pandemic. While comprehensive reviews on mental health within education have been conducted, most focus on assessing levels of stress and burnout, identifying stressors, or classroom intervention methods (Anderson et al., 2019; Yamaguchi et al., 2019). No reviews have previously been conducted within agricultural education and related fields. The lack of peer-reviewed literature in this space poses an immense challenge to understanding and exploring mental health within agriculture and among agricultural educators (Baker et al., 2022). The purpose of this study was to examine existing mental health and well-being research in agricultural education literature from 2012-2022 to identify knowledge gaps and provide insight for future research inquiries. This study was guided by the following objectives: (1) identify research relating to mental health and well-being in agricultural education; (2) categorize studies based on key words, year published, population served, and study design in agricultural education. This study aligns with National Research Agenda of AAAE Priority 7: Addressing Complex Problems (Andenoro et al., 2016) by summarizing scholarship to advance research and build upon previous findings to support the mental health and well-being of educators and people working in agriculture.

Conceptual Framework

We used the occupational stress model to examine literature under the lens of agriculture and education as occupational groups. The occupational stress model attempts to capture risk and factors in personal, occupational, social, and home environment arenas that contribute to stress outcomes (Davidson & Cooper, 1981). This model provides utility for exploring potential factors in these arenas, taking into account precursor variables contributing to work-related stress and how stress might manifest (Davidson & Cooper, 1981).

Methodology

We conducted a scoping review to synthesize research on mental health and well-being in agricultural education and related fields to identify trends based on publication date, populations of interest, and study design (Munn et al., 2019). We systematically examined research manuscripts published in the *Journal of Agricultural Education* (JAE) and proceedings from the American Association for Agricultural Education (AAAE) National Conference from 2012-2022 for keywords present in titles and abstracts relating to mental health and mental illness (i.e.,

mental illness, mental health, well-being), mental health conditions, (anxiety, ADHD, bipolar, borderline personality disorder, depression, dissociative disorder, eating disorder, obsessive compulsive disorder, posttraumatic stress disorder, psychosis, “schizoaffective disorder, and schizophrenia) and associated risks or outcomes of poor mental health (self-harm, suicide, stress). When necessary, all variations of a term were used in a search (e.g., posttraumatic stress disorder/post-traumatic stress disorder/PTSD). The initial search of items ($N = 2,434$) resulted in a sample of 71 units for review (24 journal articles, 24 research proceedings, and 23 poster proceedings). Next, we excluded those not relating to human well-being or stress, misusing or mischaracterizing terminology (e.g., test anxiety) and removed innovative posters, resulting in a final selection of $n = 38$. We categorized the units based on year, key terms identified, population of interest, and study design.

Results

Of those 38 units, there were 17 JAE research articles, 15 research, and 6 poster proceedings from the AAAE National Conference. Of the units, key words included mental health ($n = 2$), well-being ($n = 9$), anxiety ($n = 1$) and stress ($n = 26$). A majority of research conducted over the past decade was either published or presented in 2013 ($n = 7$), with equal representation of studies exploring mental health and related concepts in the first half of the decade (2012-2016), as compared to the second (2017-2022). With respect to populations of interest, four themes emerged. These included: agricultural education teachers ($n = 29$), individuals working in agriculture ($n = 5$), students ($n = 4$), and community members ($n = 1$). Most of the research conducted used quantitative study designs ($n = 22$). Nine studies employed qualitative methods, five used a mixed-method design, and two were undefined.

Conclusions, Recommendations, and Impact on Profession

Despite the importance of mental health in the context of education and the agriculture industry, less than 2% of JAE literature and national AAAE conference proceedings in the last decade related to mental health, related disorders, or associated risk and outcomes. Majority of research focused on assessing stress among populations of agricultural teachers, which is consistent with findings revealed Shoulders et al. (2021), and was quantitative in nature. Future efforts might be directed toward underrepresented lines of inquiry, such as mental health literacy, understanding needs of students with mental health disorders, and mental health-informed teaching strategies. Scholars in our field should also consider research with understudied populations, such as agricultural workers or those in rural communities. Additionally, because mental health is incredibly nuanced and complex, more efforts to qualitatively explore research questions around mental health and mental illness in our field might provide more frameworks for future inquiry. Articles and proceedings included in this study were selected based on keywords, so the depth to which researchers adequately addressed issues varied. Given the rising number of educators experiencing work-related stress and rising levels of teacher attrition following the pandemic, these findings ultimately point to a need to further explore mental health within the discipline (CDC, 2021). We recommend an additional study be conducted to further identify themes in this research to inform future direction of scholarship in this area. Finally, we encourage scholars in our field to explore collaborations with colleagues in medicine, psychology, psychiatry, public health, and sociology to drive research initiatives that address complex mental health challenges in schools and rural communities to elevate the number and caliber of related studies conducted in our discipline.

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