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Running head: FUNDING THE FIELD

Eastern Kentucky University

Funding the Field: A Literature Review of the Kentucky AgrAbility Program's Financial  
Need to Assist Agricultural Workers Across the Commonwealth

Honors Thesis Submitted in Partial Fulfillment

Of The

Requirements of HON 420

Fall 2019

By

Leah Goodman

Faculty Mentor

Dr. Julie Duckart

Department of Occupational Science and Occupational Therapy

**Abstract**

Funding the Field: A Literature Review of the Kentucky AgrAbility Program's Financial  
Need to Assist Agricultural Workers Across the Commonwealth

Leah Goodman

Dr. Julie Duckart of the Department of Occupational Science and Occupational Therapy

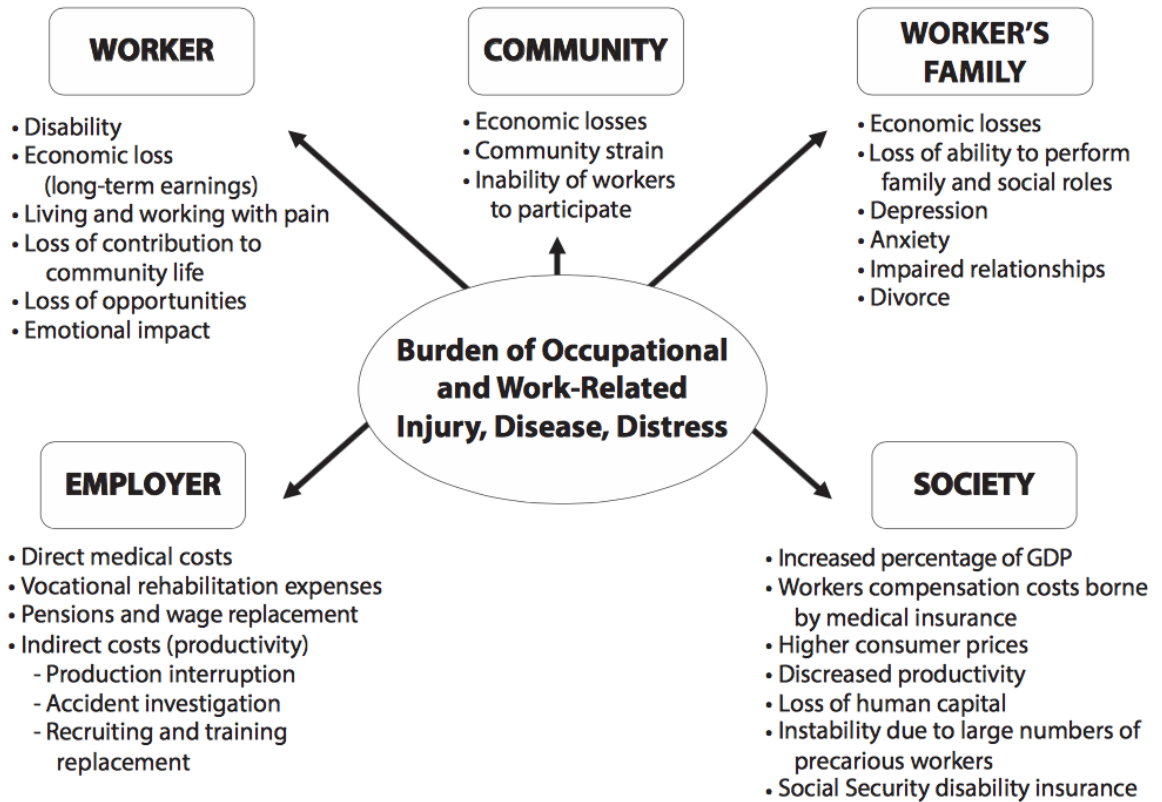
This thesis combines the disciplines of occupational science, occupational therapy, and agriculture in order to outline a need for additional financial funding for the Kentucky AgrAbility Program. The Program has made a phenomenal impact on the lives of many individuals who have suffered from farm-related injuries; however, the scope and quality of its services are limited due to constricted access to funds. Through examining and exploring literature available on the topic, a need and argument for additional funding is constructed. Current partnerships are explored and methods of improvement, including an employee training course, are proposed. A new partnership with the Kentucky FFA Association is suggested through identifying potential benefits to both students and clients. A need for healthcare education focused on effectively treating agriculturalists is identified and analyzed. Student curriculum and continuing education units are suggested. An occupational science perspective is used to shed additional light on why AgrAbility's services are so important to farmers with disabilities. To conclude, an argument is made for more funding allowing the Kentucky AgrAbility Program to expand its services to address mental health concerns. The information presented will ultimately result in providing enhanced services to Kentucky's agriculturalists.

*Keywords and Phrases:* The Kentucky AgrAbility Program, funding, agriculture, occupational therapy, FFA, honors thesis

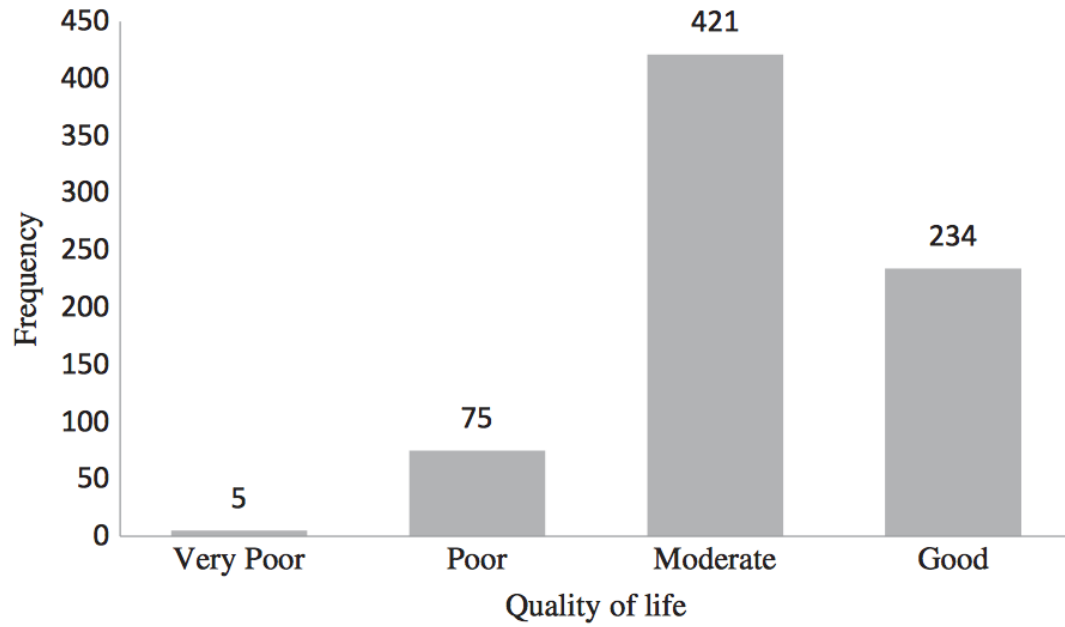
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### **Acknowledgements**

I thank God, first and foremost, for giving me the strength, knowledge, and abilities needed to complete this thesis.

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I thank my family and friends who supported and helped me along this journey and endured alongside me.

I thank my grandfather in Heaven and my father who instilled in me a love for agriculture and taught me what it truly means to have the heart of a farmer. They have shown me the way to rely on God in all situations, trust that He has an ultimate plan, and have patience for Him to bring the rain in the droughts of this life.

## **Chapter One**

### **Introduction**

#### **Background and Need**

The Kentucky AgrAbility Program was developed in 1998 to assist rural and farm families who face challenges due to disability. It works to promote a continuation in occupation after a debilitating injury through education and technical assistance (See Image 1, Image 2, Image 3, and Image 4). The Program helps to give hope by maximizing these individuals' abilities on the farm, rather than focusing on their restrictions and limitations (Kentucky AgrAbility, 2019). Kentucky is home to approximately 89,000 farm operators, making up less than 2% of the state's population (United States Census Bureau, 2018). Fifteen percent of all farmers in the Commonwealth have a permanent physical or cognitive disability that prevents them from performing an adequate job. The Kentucky AgrAbility Program has worked extremely hard to assist these individuals and their families; however, the scope and quality of their services is limited due to a lack of funds. There are multiple groups of individuals who are underserved and are missing out on assistance that could greatly help them thrive in their occupation, despite their disability. The services AgrAbility provides lowers their risk of the many issues associated with disability. The work is proven to be 99% effective in accommodating farmers in their return to the field and equipping them

to perform the duties that their lifestyle demands (Hancock, 1998). “Farmers were reported to have a higher rate of successful rehabilitation compared to the general population with disabilities” (Mathew, Field & Etheridge, 2011, p. 96). The success is apparent. Throughout this project, the need will become very evident. A solution must be found and advocated for.

### **Thesis Statement**

The Kentucky AgrAbility Program has made a phenomenal impact on the lives of many individuals who have suffered from farm-related injuries; however, additional funding would equip the Program with the necessary means to expand in order to reach larger volumes and make a more immense impact.

### **Definition of Terms**

The operational definition of the following terms will be used in this research:

*AgrAbility*—A discretionary grant program administered by the United States Department of Agriculture National Institute of Food and Agriculture, with a core focus on providing education, networking, and assistance to return agricultural workers with disabilities back to the workplace (Wilhite & Jaco, 2014)

*Agriculturalist*—Someone concerned with the science or art or business of cultivating the soil; cultivator, grower, raiser, farmer, granger; a person who operates the farm (American Heritage Dictionary, 2011)

*Agriculture*—The science or practice of farming, including cultivation for the soil for the growing of crops and the rearing of animals to provide food, wool, and other products (Oxford University Press, 2019)

*Continuing education*—Education provided for adults after they have left the formal education system, consisting typically of short or part-time courses (Oxford University Press, 2019)

*Disability*—A physical or mental condition that limits a person’s movements, senses, or activities (Oxford University Press, 2019)

*Funding*—Money provided, especially by an organization or government, for a particular purpose (Oxford University Press, 2019)

*Limitation*—A limiting rule or circumstance; a restriction (Oxford University Press, 2019)

*Mental illness*—A disturbance of the mind that may interfere with normal behavior and make daily life difficult (Sheppard-Jones et al., 2000)

*Occupation*—The doing of work, play, or activities of daily living within the temporal, physical, and socio-cultural context that characterizes much of human life (Kielhofner, 2002)

*Occupational deprivation*—State of prolonged preclusion from engagement in occupations of necessity or meaning due to factors outside the control of a person (Occupational justice glossary, n.d.)

*Occupational disruption*—Transient or temporary condition of restriction from participation in necessary or meaningful occupations (Occupational justice glossary, n.d.)

*Occupational justice*—Recognizing and providing for the occupational needs of individuals and communities as part of a fair and empowering society (Occupational justice glossary, n.d.)

*Occupational participation*—Includes and supports opportunity for meaning making, sense of accomplishment, health, healthy bio and socio-rhythms, choice and voice; engages body, mind, and soul (Occupational justice glossary, n.d.)

*Occupational science*—The study of occupation: how we occupy our time through activity, organize ourselves by activity patterns and habits, and create meaning through occupation (AOTA, 2016)

*Occupational therapy*—The only profession that helps people across the lifespan to do the things they want and need to do through the therapeutic use of daily activities (AOTA, 2016)

*Place*—Setting, landscape, ritual, routine, other people, personal experiences, care and concern for home (Relph, 1976)

*Place integration*—Recognizes that places are part of us; that our lives emerge as we experience life in places; that our intentions, meanings, attachments to places and to others, as well as our identity, are inextricably linked to the wheres of our lives (Occupational justice glossary, n.d.)

*Self-efficacy*—Thoughts and feelings concerning perceived effectiveness in using personal abilities to achieve desired outcomes in life (Kielhofner, 2002)

*Stigma*—A mark of disgrace associated with a particular circumstance, quality, or person (Oxford University Press, 2019)

## Chapter Two

### Literature Review

The aim of this literature review is to examine and explore the current information available on the topic. The Kentucky AgrAbility Program will be examined from an occupational science perspective to shed light on the need for additional funding.

#### Occupational Science

Agriculture is a way of life for the individuals who Kentucky AgrAbility serves. Farming is their work identity. Pierce (2003) discusses work identity as a way to “display our identities as occupational beings within the larger society. ... By talking about our work, we are explaining who we are” (p. 64). A loss in this work identity can be agonizing for individuals. “In addition to suddenly questioning one’s identity, one also loses the daily routine of using occupational skills. Networks of social relations that have been created through years of shared work are often lost” (p. 67). In rural, small-town agricultural communities, it seems as though everybody knows everybody. Farmers are friends. They chat at the local greasy spoon, pull up to each other’s shop to borrow a tool, and bump into each other at the auto parts store. Because they share the same work, they often also share the same interests. When farmers experience injuring accidents and are taken out of their work, they are taken out of their routines as well. This is not only in regard to daily occupations, but also to social network. Rather than being out and about at all the usual places the job demands, the farmers are forced to take time to recover, which usually involves staying at home. In the summer of 2019, my father had a farming accident that led to a broken arm, facial injuries, a concussion, and a minor brain injury (see Image 5). The injuries from the 20-foot fall caused a disruption in my father’s



normal routines. He struggled with taking it easy. His normal routine consists of working 15-hour days on the farm and hardly ever resting at home. My father's occupational disruption was not an easy triumph. All he wanted to do was return to the field and plant beans. This is an occupation he has partaken in for over thirty years. No one else on the farm knew how to effectively operate the planter. It was difficult for my father to understand the importance of not returning to work before he was ready. He needed to take the time to recover and see the value in refraining from pushing himself to return to work before he was ready, which had the potential to result in further injuries. Christiansen and Townsend (2010) express the idea that occupation is the principal means through which people develop and express their personal identities. My father is a farmer. That is where he finds his identity. Although he has now returned to work, he is not 100% well. His brain does not process information the same as before his accident and he lost much of his memory. This does not mean he cannot work. It only means he must work to find new ways to effectively accomplish tasks and find new opportunities for occupational participation. The experience of my father is quite similar to that of many other disabled agriculturalists. The sudden occupational disruption in routines can often result in a loss of identity for the individual. Pierce (2003) continues by discussing the solution to this loss of identity. "An occupational therapist can be an effective facilitator in this effort by drawing on his or her wealth of knowledge regarding occupations and activities to discuss, suggest, and assist in experimenting with new occupational patterns" (p. 67). The Kentucky AgrAbility Program provides our state's agriculturalists who are in this situation with the necessary resources and means to adapt and overcome their disability.

Lensegrav and Choat (2018) share the testimonial of a 21-year old agriculturalist who received help from AgrAbility after a single vehicle rollover that left him paralyzed from the T4 vertebrae down:

‘Every day I still come across things I wish I could do easier,’ said Meyers. ‘But I can do almost everything I used to do – things just take a lot longer and a lot more time. I’ve been able to overcome, adapt, and adjust. I can’t look back – hindsight is 20/20 – I have to keep moving forward. I’ve always had that attitude from day one. There wasn’t much else you could do. (p. 2)

The field of occupational science helps to define and express the significance of the work of the Kentucky AgrAbility Program. It elucidates the meanings, values, and importance of occupations for agriculturalists.

### **Funding**

The National AgrAbility Program, located at Perdue, is funded through the United States Department of Agriculture. It consists of 20 State/Regional AgrAbility Projects (SRAP). States are required to apply for highly competitive grants. The grants provide funding for four years. Due to the numerous budget cuts and limited funding elsewhere, there is always question whether AgrAbility will have the necessary funding to exist from year to year. There is even more question among the existence of SRAPs (Lensegrav & Choat, 2018).

Hamm, Field, Jones, Wolfe, and Olson (2012) wrote a retrospective forum to summarize the key outcomes of the 20<sup>th</sup> anniversary national AgrAbility conference that took place in Washington, DC on September 14, 2001. The primary purpose of the event

was to reflect on the successes of the past and brainstorm a plan for future work. Through historical evidence, testimonials, and future envisions, this source creates a strong analysis of the AgrAbility program. The authors deduce several methods that have previously succeeded and recommends continued use. It also articulates multiple new suggestions to pursue in the future with the purpose of promoting growth of the AgrAbility project nationwide and even worldwide. Past successes are partially attributed to partnerships with foundations, organizations, cooperatives, and universities. Key evidence is drawn from the National AgrAbility Project 20-year Summary Report, which was specifically designed to print the accomplishments of the project. By including this report, the article allows for explication of the past which allows specific conclusions on the benefits and drawbacks of efforts to be drawn. This promotes meticulous adaptation prior to future pursuit. The article concludes by summarizing the event's hypotheses for future growth, such as spreading the message of AgrAbility using various methods, educating health care professionals, and utilizing media for public exposure. These hypotheses were designed nationally with the hopes that individual states would strive to carry them out. The Kentucky AgrAbility Project would be better equipped to pursue these endeavors with additional funding.

Hunter, Hancock, Weber, and Simon (2011) examine another aspect of AgrAbility that needs additional funding. The authors write of recent improvements to the program that twists services by explicitly targeting smaller subgroups within the population of disabled farmers: minority, women, and Appalachian small farmers.

Behringer and Friedell (2006) speak specifically of Appalachian disparities:

The Appalachian regional population has lower income and poorer educational achievement and is older than the general U.S. population. These characteristics are generally seen as precursors to poorer health status. ... The Appalachian disparities dilemma is that although poorer health outcomes in the mountains conform to popular regional beliefs, the disparities have not been recognized regionally or nationally. (p. 3)

The Kentucky AgrAbility hopes to address this, and other, disparities and work toward solutions. The goal of the adaptation is to broaden the base of service providers in order to expand the program through education to reach out to specific underserved populations who have not traditionally received the services provided through the program. The authors utilize various statistics in order to emphasize their claim on the importance of the extension to the Kentucky AgrAbility program: “23.7% of Kentuckians, age 5 and older, have a disability as compared to 19.3% of the US population. Kentucky has the second highest rate of disability in the country. Of those with disabilities, nearly 30% live in poverty.” (US Census Bureau, as cited in Hunter, Hancock, Weber, & Simon, 2011, p. 100). The authors further identify the need by noting only 34% of people with disabilities are employed, as compared to 78% of people without disabilities. This claim is emphasized by expressing that those with disabilities are more likely to drop out of school, lack social opportunities, have inadequate transportation, go without medical care, and be less satisfied with their lives—all eventually contributing to poor health outcomes and health disparities. Kentucky AgrAbility has partnered with Cardinal Hill Rehabilitation Hospital and Kentucky State University Land Grant Program in order to fulfill its new vision; however, these

organizations have limited funds to supply. More funding is needed to address these targeted populations that have been overlooked in the past.

### **Current Partnership**

Kentucky AgrAbility is part of the National AgrAbility Project and exists as a partnership between the University of Kentucky Cooperative Extension Service, Cardinal Hill Rehabilitation Hospital, Kentucky State University, and the Kentucky Office of Vocational Rehabilitation (Kentucky AgrAbility, 2019). However, these partnerships are not always utilized efficiently or effectively. Mathew, Field, and Etheridge (2011) wrote a journal article based on a survey completed with the National AgrAbility Program staff on their experiences interacting with Vocational Rehabilitation (VR) services. The paper presents a summary of the findings which reflect the relationship between these services. It includes the positive aspects of the partnership, difficulties encountered, and the participant suggestions for enhancing the partnership to better serve the farming population. VR has area offices across the state of Kentucky and has available funds—received from federal and state governments—to be utilized by the Project. One notable conclusion of the survey was the lack of knowledge among counselors. This prohibits the partnership from being fulfilled in the best possible way and ultimately results in less access to aid for farmers with disabilities. This knowledge allows the disadvantages to be brought to the surface, paving the way for the issues to be resolved and suggestions for future improvement. In most cases, VR counselors have little to no background in agriculture. It is hard for them to understand the complex desire and need for agriculturalists to return to their work on the farm because they are unfamiliar with the culture that exists within this occupation. Ninety-seven percent out of the total 125,155

producers involved in Kentucky agriculture are operated by families or close relatives, based on the 2017 census (Estep, 2019). Mathew, Field, and Etheridge (2011) write, “At times, VR counselors who are not knowledgeable about farm and farmers’ requirements are reluctant to support the higher cost of rehabilitation of farmers due to this reason” (p. 96). As an individual who was raised on a family farm, I am very familiar with the culture, as well as the stigma, associated. Many are unfamiliar with the sense of pride and duty felt by agriculturalists. In my case, my grandfather worked countless hours in the 1970s to build the operation that exists today. After he lost his battle to cancer in 2001, my father and uncle took over the farming operation and have continued to carry out his legacy to date. During the 1980s, my grandfather experienced droughts and high interest rates that made meeting the needs of his family very difficult. He was forced to sell farms and refinance land he had previously paid in full. He would work at a factory eight hours during the day and then come home to an entire day’s work left to do on the farm. Among the numerous long hours, he remained a wonderful husband, as well as a great father to his five children. Despite the circumstances during this difficult time, his love for farming endured. My grandfather once again saw his farming operation profitable in the following decade. This story is often told to me by my father and I become more and more in awe each time I hear it. The patience and trust my grandfather showed during that time is incredible. Agricultural life is filled with honor, courage, and duty. One does not begin to describe the faith, dedication, and hard work that is so evident in a farmer’s life. I would be such a different person had I not been raised a farmer’s daughter or taught what it truly means to have the heart of a farmer. The history of my family’s farm is not unique, but rather similar to that of 98% of farms in the

Bluegrass state. Each farm has a history. It has experienced seasons of bumper crops and periods of major droughts. Many of the loved ones who wrote the history have gone on before us. From the outside looking in, farming may seem like an average, run-of-the-mill way to make a living. However, I can personally say, it is much more than that. It is an occupation that provides meaning and purpose for so many individuals and especially Kentuckians. The article declares that Vocational Rehabilitation (VR) has the available funds—received from federal and state governments—to be utilized by AgrAbility. Although VR funding is limited, it does offer a great source of monies. It could be a portion of the solution to AgrAbility’s need for more funds. The Vocational Rehabilitation partnership could be better utilized if counselors shared the knowledge and understanding of the culture. I propose an educational training course be given to employees of both the Kentucky AgrAbility Program and the Kentucky Office of Vocational Rehabilitation so that both organizations will have a better knowledge of the benefits of their partnership. This would result in overall improvement of the scope and quality of services offered by AgrAbility.

### **Potential Partnership**

Hamm, Field, Jones, Wolfe, and Olson (2012) write of the involvement with a local FFA chapter on one of the client’s farms featured in their article. FFA, formerly known as Future Farmers of America, is defined as “an intracurricular student organization for those interested in agriculture and leadership. We help members develop their own unique talents and explore their interests in a broad range of agricultural career pathways” (Kentucky FFA Association, 2019). As a former FFA local chapter president and regional vice president, I would like to further explore this idea. I

will use my acquired expertise to draw conclusions on how such a partnership could be utilized to not only create more awareness of the AgrAbility project in the student population, but also be a great utilization of local resources. Through my extensive involvement with the Kentucky FFA Association and many local FFA chapters, I have had much experience participating in and planning community service projects. The FFA Organization places much importance on service. I cannot think of a better organization to provide labor for injured agriculturalists. The population is readily available and the students are almost always looking for service activities to be a part of and ways to volunteer. AgrAbility is a door to a service opportunity in an area of passion and expertise for FFA members. This involvement will give the students the chance to learn of disabilities and gain first-hand insight into how the Kentucky AgrAbility Program operates. Students will learn to advocate for individuals with disabilities.

Hamm, Field, Jones, Wolfe, and Olson (2012) write the following:

Peggy Milliman mentioned that members of the local FFA (Future Farmers of America) chapter volunteer to help with some of the projects around her family's farm, which has been great exposure for these young people to see her working right along with them on her scooter. In her own way, she has done her part to reduce the stigma around being 'disabled.' (p. 413)

Teaching students at a young age to see individuals as abled, rather than to focus on their limitations, will make phenomenal impacts on decreasing the stigma associated with disability. This prospective partnership would also raise awareness for agriculture and farm safety through experience. I believe hands-on learning experience is the best



way to learn. “No matter which track students choose to pursue, the hands-on component of agricultural education adds a new dimension to their educational experience” (Fritsch, 2013, p. 23). Involvement at local farms creates opportunities to learn tangible life skills that the classroom cannot provide. It additionally grants students with the opportunity to make friendships and build relationships with local agriculturalists. Not only can these agriculturalists serve as great role models to young students with futures in agriculture, they can also serve as future employers or supervisors for internships. The benefits of this partnerships, however, are not exclusive to students. The clients of the Kentucky AgrAbility Program would be provided with a lot of labor and assistance on their farm. This would come at no cost to the Program. For these reasons, I believe a collaboration with the FFA organization would provide further exclusive benefits to the Program and its clients that the existing partnerships fail to offer.

### **Education**

Waite (2015) writes, “Just understanding that this is the person’s identity can give occupational therapists a big edge. The key is to use therapeutic use of self and be aware that farming is more than a job” (p. 15). The University of South Dakota Department of Occupational Therapy offers a module on agriculture.

Waite (2015) quotes a professor:

In America, no one is ever that far away from a farm. And because farming is such a risky profession, the likelihood of farmers ending up in the health care system is pretty high. ‘I tell all the students in the class that I don’t care if you never plan to work in a rural area, you need to know this information because when a farmer has an acute injury, you

might be the one he sees,' Smallfield says. 'You might end up doing hand therapy in a major city, but because the farmer has to travel there to get specialized care, you might end up working with him.' (p. 15)

When my father had his accident, he drove over an hour to Nashville, Tennessee—a metropolitan area—in order to receive the medical attention and therapy he needed. These professionals probably never thought they'd be working with farmers when they decided to work in a metropolitan area. However, they ended up working with my Dad. I am sure they have worked with countless other clients who have also been victims of a lack of health care availability in rural areas. My father's experience serves as a testimony to why all health care professionals need to be equipped to treat this population accordingly. Farming is consistently identified as one of the most dangerous professions in the United States. 372 farmers and farm workers died from a work-related injury in 2012, resulting in a fatality rate of 22.2 deaths per 100,000 workers. In 2016, 417 deaths were reported. Among survivors, the chance of a serious injury leading to a need for rehabilitation is astronomically high, as well as on the rise. Every day, about 100 agricultural workers suffer a lost-work-time injury (Centers for Disease Control and Prevention, 2018). Farmers are at heightened risk of numerous health concerns, including, but not limited to, respiratory diseases, skin diseases, musculoskeletal disorders, chronic pain disorders, hearing loss, osteoarthritis, and even psychological disorders (Waite, 2015). Health care professionals need to be equipped to treat this population accordingly. Occupational Therapy's holistic approach to treatment, in specific, can make enormous impacts on the lives of these individuals.

Wilhite and Jaco (2014) write, “limited attention has been devoted to the cultural and practice competencies needed by occupational therapy and physical therapy professionals who provide services to farming families impacted by chronic health or disability issues” (p. 325). The scholarly journal article highlights the methods utilized by the AgrAbility program to develop a model of continuing education programming for occupational and physical therapists that evaluate and treat agricultural workers after acute injury or exacerbation of chronic health conditions. This continuing education is needed in order for health care professionals to properly treat agricultural workers in a way that effectively promotes their self-efficacy and capacity for returning to an agricultural way of life. “Agricultural occupational safety and health should represent a continuum of services responsive to individuals, families, and agricultural communities across a life span and range of health status changes” (p. 325). After identifying the need, the journal article analyzes and reviews literature to draw out key conclusions that helped create the proposed model of continuing education. In order to assess the need for continuing education units, three primary questions were posed: 1) Do occupation therapy/physical therapy (OT/PT) professionals already have a sufficient knowledge about agricultural living and work environments? 2) Are OT/PTs already providing culturally relevant treatment and interventions to the agricultural population? 3) Are OT/PTs able to make appropriate discharge plans for injured or ill agricultural workers? The inclusion of this needs assessment analyzes the scope of the problem and the need for a solution. The information gathered was effectively utilized to identify the knowledge, skills, and attitudes already held by OT and PT professionals associated with AgrAbility projects. The article addresses the results of a survey developed by the

Wisconsin AgrAbility Project given to occupational therapists and physical therapists working with AgrAbility and other AgrAbility staff with expertise in direct service provision. The subjects agreed to share information and give advice to the working partners. The survey results showed that, “therapists believed one must possess general assessment and treatment skills and be able to apply them in agricultural health contexts. One must also develop advanced-level skills [in the field of agriculture]” (p. 329). To conclude the article, authors point out limitations to developing the educational program effort. One of these limitations was constraint by lack of empirical and qualitative research on the physical rehabilitation as part of the continuum of care for agricultural workers. With more funding, these research studies could be performed.

Hunter, Hancock, Weber, and Simon (2011) also discuss the need for training of health professionals. They propose a method to better serve these populations. AgrAbility and health disparity training should be provided to allied health professionals and students in the state of Kentucky. Medical and rehabilitation professionals are not usually accustomed to the variety of tasks and the physical, environmental, and economic conditions associated with the agricultural populations. “Allied health students and professionals may not be well trained in issues related to rural health, health disparities, and underserved populations” (p. 103). There is a strong need for the addition of this training to existing curriculum, as well as incorporation of the material in continuing education units for working health professionals. More funding is needed in order for this to be enacted.

Continuing education units can also help professionals provide better treatment by creating a specific awareness and sensitivity toward the industry, as well as more confidence when working with the population.

Finn's (2019) study found the following:

For almost every question related to confidence, participants who had taken the most continuing education courses reported the greatest levels of confidence. In contrast, participants with the least number of continuing education courses had lower levels of perceived confidence. ... Years of clinical experience was not associated with higher levels of confidence in all areas of concussion evaluation and treatment. (p. 3)

Continuing education units are effective and allow for better treatment. The issue of a lack of agricultural training for health care professionals is directly correlated to the issue of a lack of funds. I propose additional AgrAbility funding would allow access to the resources needed to create a continuing education curriculum that equips healthcare specialists with the necessary knowledge to work among the culture associated with this specific population. This, in turn, will create better therapy outcomes when working with farmers.

### **The Farm as a Place**

Langer, as cited in Hasselkus (2011), discusses the significance of place. "Location is merely an incidental quality of place. In addition to the setting, a sense of place may include 'landscape, ritual, routine, other people, personal experiences, care and concern for home'" (p. 41). Places become special after we have lived and experienced through them and they have associated memories.

Stegner (1992) discusses how a location becomes a place:

“A place is not a place until people have been born in it, have grown up in it, lived in it, known it, died in it—have both experienced and shaped it, as individuals, families, neighborhoods, and communities. . . . No place is a place until things that have happened in it are remembered.” (pp. 201-202)

For agriculturists, place is the farm. The farm is important to them because it is where they have grown up, lived, worked, experienced, had highs and lows, and so much more. It is home to them. For religious individuals, the farm is most likely where they feel God more than anywhere else. Farming is one of the few occupations that continuously remains at the mercy of nature and God. The most expensive seed, fertilizer, and equipment one can purchase are of no benefit without the correct balance of sunshine, temperatures, and rainfall. Because of the agriculture industry, I have been shown the way to rely on God in all situations, trust that He has the ultimate plan, and have patience in His perfect work. When my grandfather was in the field, he felt all of the memories of the good times and the difficult times, the hard work he put forth each and every year to get the crop in the ground and harvest it for profit, and the sense of pride and accomplishment associated with that hard work. For him, the field was a special place. Because of him, the field is also a special place to me. This holds true for countless other agriculturalists as well. AgrAbility understands this significance and is sensitive towards it. The Program provides direct on-farm services to agriculturalists (University of Kentucky, College of Agriculture, 2019). The clients never have to leave the place that is so special to them. They receive technical assistance to their equipment and learn techniques and tips to use it safely and efficiently, while they are in the

presence of a health care provider. This is something that cannot be performed in a clinical setting. Not only do the farmers feel more comfortable, but therapy on the farm also allows for more specific and higher quality therapy outcomes. Occupational science lays the foundation for understanding why people do what they do and addresses the importance in understanding for treatment.

### **Impact of Disability**

Schulte et al. (2017) propose a new approach to the assessment of the burden of occupational diseases and injuries. The approach is focused on four specific elements of assessing burden: 1) utilizing multiple domains; 2) taking a broader view of the work relatedness of disease and injury; 3) assessing the impact of the entire working-life continuum; and 4) applying the comprehensive concept of “well-being” as an indicator in addressing contemporary changes in the nature of work, the workplace, and the workforce. This new design for assessment is needed to understand the broad consequences of work-related disease, injury, and distress. This understanding is critical to enable policymakers and employers to take care of employees in the best way possible, through proper research, prevention, and risk management. The use of the four specific points allows the approach to be understood and properly defined. In addition, the article presents a chart that identifies many domains of major burden (see Figure 1), which is helpful in addressing the main data at hand and easily seeing the many effects injury, disease, and distress has on various aspects of one’s life. Numerous studies have been performed to put in perspective how vast of an issue this is. The authors point out the inadequacy of the estimates available, identifying and addressing a limitation of many other sources on the topic while also supporting the need for a new approach. This claim

is backed up with evidence of estimates failing to take into account the burden of disease that result from workplace exposures alone and in conjunction with exposures from other areas of life. The article continues to elaborate on the four elements listed in the proposed approach and how they can be utilized to better estimate work-related disease and injury in fatal and non-fatal cases. This article serves to point out a crucial fact that is involved in the laws that affect AgrAbility. A more comprehensive understanding of the burden of workplace hazards, in relation to agriculture specifically, could be extremely beneficial in providing more government funding to AgrAbility. This could result in allowing the program to be spread to more states and ultimately provide helpful services to more individuals.

#### **A Need to Address Mental Health**

Rostamabadi et al. (2019) performed a study to analyze the prevalence of chronic diseases and occupational injuries and their influence on health-related quality of life among farmers working in small-farm enterprises.

Rostamabadi et al. (2019) write:

Agriculture work involves the use of a variety of hazardous equipment, and the operation of such equipment is often carried out under uncontrolled and poor safety and environmental conditions. Farmers, by their work nature, are obliged to work with hazardous machinery and equipment such as tractors, harvesters, and cutting and piercing tools, and they are exposed to a variety of chemical, physical, and biological risk factors such as pesticides, inorganic dusts, noise, sunlight, viruses, and ergonomic stresses, all of which can lead to a wide range of chronic



diseases, accidents, and injuries, thereby, seriously jeopardizing their safety, health and quality of life. (pp. 248-249)

The study performed used a cross-sectional survey that found 96.1% of all the 735 farmers surveyed had at least one chronic disease. That is an incredibly shocking statistic. These diseases, as well as other factors effecting mental health, had a contribution to farmers' quality of life (see Figure 2). The information presented in this study further emphasizes the enormous need for AgrAbility and the services it provides to physically accommodate agriculturists. If there were more funding, AgrAbility could potentially provide needed mental health services as well. Rather than relying solely on the work of physical therapists and occupational therapists, AgrAbility could also utilize inter-professional collaboration to incorporate the work of psychologists and therapists to improve the mental health and overall well-being of farmers. Figure 2 shows that, on average, more than 68% of agriculturalists report a moderate or worse well-being. Working in the agriculture sector is known to be dangerous work that is associated with a wide range of psychosocial risk factors. Unfortunately, these factors have the potential to lead to the development of a variety of mental health problems. "Financial uncertainty, isolation, planning difficulties, administrative demands, and the interaction between stress and exposure to multiple physical risks are all psychosocial hazards that have been recognized as being detrimental to farmers' mental health" (p. 254). Well-being is decreased even further when occupational injuries occur. These stressors are more prevalent during periods of occupational deprivation. When farmers experience an injury they may not be able to complete daily demands such as tending to their crops or feeding and watering their livestock. This requires the farmer to rely on and trust someone else to

get these tasks completed. This can pose as an excessive stressor, on top of the numerous other worries associated with a loss of work time, such as a decline in income, as well as healing and recuperating concerns. Additional funding would allow AgrAbility to address the need for services targeted toward mental health improvement.

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