Mental Health Service Preferences Among Illinois Dairy Farmers: A Best-Worst Scaling Approach

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Problem Statement
In 2017, 1 in 5 United States (U.S.) adults (ages 18 and older) reported a mental health related illness [1]. In that same year, 11.2 million U.S. adults received some form of mental health treatment [1]. It is estimated that the impact of mental health illnesses results in $193.2 billion in lost earnings per year in the U.S. [2]. While numerous barriers to mental health services exist, access to such services is critically important. Some of the barriers include: input costs, finances, and retaliatory tariffs are just some of the government policies and programs, volatile commodity prices, rising input costs, debt, and fear of losing the farm, and passing the farm down to the next generation [3].

While mental health affects individuals across all sectors, males with an occupation in the “farmers, ranchers, and other agricultural managers” category were found to have a suicide rate over one and half times that of their national counterparts [4,5]. Many stressors, internal and external, have been cited as to why the agriculture industry has higher suicide rates. Internal stressors that agriculture producers face include labor intensity, extreme work hours, farm related injuries or disabilities, fear of losing the farm, and passing the farm down to the next generation [4,6]. The dairy industry in particular has seen a major decline in mental health levels: anxiety, depression, other stress related illnesses, and in some cases an increase in mental health related illnesses [3]. Many stressors, internal and external, have been cited as to why the agriculture industry has higher suicide rates. Internal stressors that agriculture producers face include labor intensity, extreme work hours, farm related injuries or disabilities, fear of losing the farm, and passing the farm down to the next generation [4,6]. The dairy industry in particular has seen a major decline in mental health levels: anxiety, depression, other stress related illnesses, and in some cases an increase in mental health related illnesses [3].

While numerous barriers to mental health services exist, access to such services could be beneficial to those involved in the agriculture sector. Symptoms associated with a decline in mental health include anxiety, depression, other stress related illnesses, and in some cases a more traumatic outcome, suicide [4,11,12,13,14,15]. The dairy industry in particular has seen a major decline in mental health levels recently [12,14,15]. Some of the reasons for increased mental health issues, including suicide and other stress related illnesses, include increased input costs (corn), excess supply, and declining milk prices [11,12,16]. The decline in milk prices comes as a result of the decrease in consumption of dairy products, predominantly milk [17,18]. Since 1975, there has been an average decline in milk consumption of 1.2% [18]. Although it may seem low, it has been persistently ongoing for a time span of five decades [18]. Retaliatory tariffs imposed by Mexico and Canada as a result of the U.S. imposing steel and aluminum tariffs on China has been another factor [4,11,16]. More recently, the unexpected coronavirus pandemic of 2020 is only adding to the existing variables affecting the dairy industry [19].

Purpose Statement
With the current economic state and growing concern over mental health issues in the agricultural community, the importance of this topic is rapidly increasing. The goal of this study is to gain insight into the preferences for mental health services among Illinois dairy farmers, for which there is little literature currently exists. This will be done by completing the following five objectives: 1) identify mental health service options preferred by Illinois dairy farmers willing to seek help, 2) quantify trade-offs that Illinois dairy farmers are willing to make when choosing between service options, 3) determine factors that affect the tradeoff decisions being made when choosing between service options, 4) examine anxiety and depression levels among Illinois dairy farmers and the role that plays on decision making, and 5) identify subgroups of Illinois dairy farmers, if any, that may influence the trade-off decisions being made.

Methodology
A questionnaire will be administered using the best-worst scaling approach to collect qualitative data in regards to the mental health of dairy farmers in order to achieve this goal. This data will be examined in order to acquire a greater understanding of this topic such as service preferences, possible mental health disorders, and various demographics. Such demographics include age, gender, full-time vs. part-time farming, family farm that has been/may continue to be passed down through generations, percent of farm that is dairy, percentage of income that comes from dairy.

Results
The results from this study could aid agricultural organizations and policymakers at the local, state, and federal level to create programs and policies beneficial to dairy producers seeking help for a mental health related illness.

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