



Original Article

## Farmer's mental health and well-being: Qualitative findings on protective factors

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### ABSTRACT

**Objectives:** Agriculture is associated with various physical and mental health risks. There has been growing concern about the psychological hazards associated with farming including high stress levels, depression, anxiety, and increasing rates of suicide. To bolster resilience and overall survival within the farmers, it is imperative to gain a comprehensive understanding of the protective factors that contribute to mental and psychological well-being.

**Materials and Methods:** The study followed an explorative research design and used purposive sampling to select samples from Chikkaballapur District in Karnataka. Nine farmers were interviewed based on inclusion and exclusion criteria. The interview schedule was prepared based on the literature review. Experts in the field did content and face validation. The transcribed data were coded using the free version of QDA Miner. The thematic analysis approach was used for data analysis.

**Results:** Three broader themes and 15 sub-themes emerged: (1) Personal protective factors: feeling of autonomy, purpose in life, passion for work, problem-solving skills, positive mindset and building resilience, learning new skills, and spiritual and religious beliefs; (2) social protective factors: friends and peer group, belongingness, family, and social engagements; and (3) environmental protective factors: lifestyle and being physically active, rural environment, government/institutional support, and recognition in the society.

**Conclusion:** The study successfully emerged three overarching protective factors that farmers perceived as significant for their mental health and well-being, entitled personal, social, and environmental. The study findings provide valuable insights for social work practitioners, guiding them in developing interventions and strategies to support the mental health and well-being of the farming population.

**Keywords:** Mental health, Well-being, Farmers, Protective factors, Karnataka

### INTRODUCTION

A farmer is a person who is involved in agriculture and raising living organisms for food or livelihood. Despite the enormous challenges of their occupations, farmers are regarded as the backbone of society, feeding, and clothing to people worldwide.<sup>[1]</sup> Agriculture is associated with various physical and mental health risks due to the hard work required under difficult conditions.<sup>[2]</sup> Farmers and their families face various physical health risks due to their work in agriculture associated with their work practices and physically demanding job with long working hours in different light and weather conditions.<sup>[3]</sup> Along with common health problems, extensive exposure to fertilizers, insecticides, pesticides, and mechanization leads to the emergence of specific health hazards that are associated with farming.<sup>[4]</sup>

India is an agrarian country, and agriculture plays a key role in India's economy. About 54.6% of the total workforce is engaged in agriculture and allied sector activities.<sup>[5]</sup> There has been growing recognition of the psychological hazards associated with farming such as high stress levels, depression, anxiety, and increasing rates of suicide.<sup>[6]</sup> The mental health issues faced by farmers in India are influenced by several compounding factors, including shifts in lifestyle, fluctuating income, crop failures, natural disasters such as droughts and floods, economic crises, unemployment, limited social support, and growing insecurity.<sup>[7]</sup>

As per the 2021 report from the National Crime Records Bureau, farmer suicides account for 6.6% of all suicides in India. Between 1997 and 2005, 1.5 lakh farmers committed suicide. Poverty, a lack of support, illiteracy, mounting

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debts, and uncontrollable weather conditions all contribute to this disastrous situation for farmers.<sup>[8]</sup> The Indian states of Maharashtra, Andhra Pradesh, Karnataka, Chhattisgarh, and Madhya Pradesh contributed nearly two-thirds of total suicides.<sup>[9]</sup> One school of thought, among others, regarding these concerns about farmers' suicide suggests the presumption of a poor mental health state, implying that farmers' psychosocial needs have been overlooked and that supportive community professionals must help solve farmer distress.<sup>[10]</sup> But when it comes to interventions and help-seeking, the majority of health insurance plans do not cover mental health services, and there is only one psychiatrist for every 250,000 people and less than one mental health worker for every 100,000 people.<sup>[11]</sup>

It is estimated that one in every four people worldwide suffers from mental health problems each year.<sup>[12]</sup> If farmers suffer mental health issues at the same rate as the general population, this will imply that approximately 25% of farmers worldwide suffer from mental health issues yearly.<sup>[13]</sup> Numerous studies conducted on mental health within farming communities worldwide have highlighted several risk factors that are both common and specific to this community; these factors encompass elements such as financial debt, government regulations, conflicting roles, volatile commodity prices, demanding and strenuous labor, the impact of climate change, and substandard living conditions.<sup>[2,7,9,13-20]</sup>

The majority of the government's response to the farmers' crisis has been economic, intending to ease financial burdens, and does not address farmers' mental health and well-being in any way.<sup>[4]</sup> The mental health systems and professionals have been relatively silent on the epidemic of farmer suicides and "Psy disciplines cannot remain apolitical in their quest to be" "scientific," for human rights/social justice and mental health stand for one another, highlighting the crucial role of resistance, empowerment, collective understanding, and activism in realizing mental health for all."<sup>[21]</sup>

The literature review examined various aspects of farmers' mental health from a global perspective and studies that explored positive mental health and well-being among farmers, with a majority of the studies conducted in Western countries, one notable theme across these studies was the identification and enhancement of protective factors that contribute to farmers' well-being, aiming to improve their quality of life and promote the development of farming communities.<sup>[4,8,12,14-19]</sup> It is important to note that only one study from India was identified, specifically emphasizing empowerment and community strengthening.<sup>[22]</sup> The literature emphasizes the need for further exploration of farmers and their psychosocial factors, specifically from a strengths-based perspective, particularly within the Indian context. Such research endeavors can contribute to the

accumulation of knowledge which is essential for developing promotional interventions that aim to enhance farmers' mental health and well-being.

To bolster resilience and overall survival within the population, it is imperative to gain a comprehensive understanding of the protective factors that contribute to mental and psychological well-being. This study aims to adopt a strengths perspective in investigating farmers' mental health, providing valuable insights for professionals, policymakers, and community workers. The resultant data can inform the development of policies and interventions that prioritize the promotion of mental health among farmers.

## MATERIALS AND METHODS

The study was conducted as a part of the MPhil research and the Institute's Ethics Committee (National Institute of Mental Health and Neurosciences), Bengaluru, India, reviewed and approved this study (Institute Ethical Committee Clearance Number No: NIMH/DO.BEH: SC.Div/2022-23). This study aimed to explore the protective factors surrounding the mental health and well-being of farmers in Karnataka. This study followed an explorative research design and used a purposive sampling technique. The farmers' population is actively involved in agriculture and its allied activities in the Chikkaballapur District in Karnataka. Nine farmers were in-depth interviewed based on inclusion (farmers working as cultivators for at least 5 years, aged between 25 and 60 years, and who can speak Kannada and provided consent to participate in the study) and exclusion criteria (Farmland owners who are not directly involved in agriculture, cultivation in more than 5 acres of land and secondary source of income apart from agriculture and allied activities).

The researcher developed a sociodemographic data sheet to collect general information on the farmers, including age, sex, religion, caste, education, occupation details, financial obligations, and family details. A semi-structured interview schedule was administered to explore farmers' protective factors of mental health and well-being. The interview schedule was prepared based on the literature review and content, and face validation was done by experts in the field, including; four mental health professionals, and one agricultural researcher.

Farmers were contacted and interviews were scheduled with the help of local farmer organizations. The researcher visited the village and had a group interaction with the farmers before the interview to establish rapport and to explain the nature of the study. Data collection was done using a semi-structured interview schedule face to face; in their native language, Kannada. Around 16 participants were approached, and 10 showed interest in participating in the

study. One interview was later rejected, as it did not qualify for the inclusion criteria. Interviews were conducted by visiting them in a previously decided and mutually agreed on venue, usually their homes or a common meeting area in the village. The interviews lasted between 45 min and 60 min.

The data collected from the farmers were recorded, translated, and transcribed into English. During the analysis stage, participants were further contacted by phone for clarification on their responses. The transcribed data was then coded by the researcher using the free version of QDA Miner.<sup>[23]</sup>

The thematic analysis approach, as proposed by psychologists Virginia Braun and Victoria Clarke, was used to analyze the data.<sup>[24]</sup> The process included the prescribed six phases: Familiarizing with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. An inductive approach was used in the process of thematic analysis to identify themes relating to perceived protective factors of mental health well-being and the researcher has attempted to categorize the emergent themes into three broader domains, namely, individual, social, and environmental.

## RESULTS

The sociodemographic details, sources of income, and financial obligations of the farmers are presented in Tables 1 and 2.

### Themes and subthemes identified

The three themes talk about the factors that positively influence farmers' mental health in their social, personal, and environmental domains. The personal theme discusses about the psychological aspects of the participants that help them in maintaining their well-being. The social and environmental theme focuses on their community living, relationship, and lifestyle. The personal theme has seven subthemes, the social theme has four subthemes, and the environmental theme has four subthemes. The content of the themes and subthemes is provided in the following paragraphs.

### Personal protective factors

Under this theme, farmers' reported that (1) the feeling of autonomy being a farmer involves having more control over their life and acknowledges that a contributor to their better well-being is the availability of free time to take adequate breaks and relax as per choice. (2) Having a purpose in life acts as a motivator in life, encouraging them to take responsibility, thereby having a positive impact on their mental health and their family's future was the most important thing in their life. (3) Passion/love toward work they are doing contributes to their mental well-being. (4) Concerning dealing with problems effectively that having certain skills and attitudes helps in coping as well as solving the issues, strategic planning involves diversifying crops, finding avenues for making more profit, managing with available resources, taking few risks, having alternate income sources, practicing discipline, educating oneself, and focusing on the present. (5) Positive mindset and Building Resilience, the farmers agreed that attitude toward the problems also has a huge impact on how it affects your mental health, sharing knowledge among others as a way of developing these skills. (6) Learning new skills, most of the farmers acknowledge learning new skills and techniques related to their profession as a confidence-boosting exercise. (7) Spiritual and religious beliefs as their source of confidence and positive outlook, activities associated with religious beliefs included; praying, visiting temples, and giving offerings.

### Social projective factors

Under this theme, farmers have informed that (1) friends were perceived as support for the most important contributor to their well-being and emphasized the importance of sharing worries for better mental health. (2) Belongingness of togetherness' to convey the feeling in the community. (3) Family plays a major role in their mental health and well-being; family supports them emotionally by being a part of the decision-making process and contributes to the feeling

**Table 1:** Sociodemographic details of farmers.

Participant	Age	Marital Status	Sex	Religion	Experience in farming (in years)	Total Family members	Members involved in farming
1	51	Married	Male	Hindu	30	4	2
2	56	Married	Male	Hindu	40	5	2
3	48	Married	Male	Hindu	30	3	2
4	55	Married	Male	Hindu	35	4	2
5	52	Married	Male	Hindu	38	3	1
6	53	Married	Male	Hindu	25	2	2
7	30	Unmarried	Male	Hindu	06	3	3
8	38	Married	Male	Hindu	07	4	2
9	42	Married	Male	Hindu	30	4	2

**Table 2:** Sources of income and financial obligations of farmers.

Type of debt and source of income	Number of participants
Public Institution Loans	3
Money Lenders	1
Both (Public Institution Loans and Money Lenders)	3
No obligations (No debt)	2
Cultivation only (source of income)	5
Cultivation and other allied activities (source of income)	4

of happiness. (4) Social engagements, farmers mentioned that engaging in social activities is a source of relaxation and stress relief. Social activities included visiting friends and family, spending time with friends and family, use of technology, reading, shopping, and going on trips.

### ***Environmental protective factors***

Under this theme, farmers' stated that (1) the role of their lifestyle and being physically active positively impacts their mental health and well-being; working as a farmer influences their lifestyle, and farming demands a physically active life. (2) Rural environment has a pleasant environment as a main contributor to their mental clarity. (3) The effect of institutional support as a contributor to well-being as it provides a sense of security. (4) Farmers believe that there is respect for farmers in society; this indirectly contributes to their well-being as it increases their feelings of self-worth.

***Supplementary material Table 1 lists quotes/descriptions supporting the themes and subthemes identified.***

## **DISCUSSION**

The study explored the protective factors in the individual, social, and environmental domains. The identified themes were categorized into three overarching domains. Within these domains, there were a total of fifteen subthemes, the personal domain aimed to identify individual factors independent of external influences; it primarily encompassed psychological elements such as perception, understanding, awareness, and motivation. The social domain addresses the participant's immediate surroundings and their impact on mental health and well-being; they primarily revolve around friends, family, and a sense of community, and the significance of social activities and engagements as factors contributing to mental health. The environmental themes shed light on the rural environment, which participants describe as "simple" and "pleasant," emphasizing its significant role in their mental health and well-being.

The personal theme revealed additional determinants that align with previous literature on the farming community,

including problem-solving skills, self-learning, a positive outlook, and resilience building. These findings are consistent with studies conducted by Woolford *et al.*,<sup>[25]</sup> Shrivastava and Desousa<sup>[26]</sup> and Padhy and Pattanayak.<sup>[27]</sup> Woolford *et al.*<sup>[25]</sup> emphasized the importance of farmers proactively educating themselves on topics related to well-being, while Shrivastava discussed the protective approach to resilience, whereby individuals employ specific mechanisms or measures to maintain their mental health. It is also noteworthy that two participants highlighted the significance of formal education in cultivating these skills, which underscores its crucial role in preventive interventions.

The mention of religious belief as a determinant corresponds with the idea that spiritual intervention programs also enhance mental health and promote overall well-being.<sup>[28]</sup> Moreover, the majority of participants expressing a sense of autonomy in their occupation align with the findings of a study conducted in 2022, which demonstrated that individuals with a high level of job autonomy exhibited effective stress management.<sup>[29]</sup>

Earlier research conducted among farmers highlights that enhanced social support, such as friends and significant others,<sup>[30]</sup> as well as being part of farming communities,<sup>[31]</sup> along with a sense of belonging,<sup>[32]</sup> act as protective factors for managing stress and promoting overall mental health. These findings align with the themes identified within the social domain. The farmers' preference for engaging in activities with others is consistent with the findings of a study that emphasizes the establishment of social relationships through leisure as a crucial factor in preventing the deterioration of mental health;<sup>[33]</sup> these findings further support the increasing body of evidence that underscores the importance of social connectedness in promoting and sustaining mental well-being among the broader population.<sup>[34]</sup>

While the previous studies suggest that climate variables and pesticide exposure can pose risks to well-being,<sup>[20]</sup> the participants in the present study emphasized the positive impact of the rural environment and lifestyle on their well-being. Despite acknowledging challenges such as insufficient rainfall and increased pesticide use, they still regarded rural life as superior to that of their urban counterparts. The recognition of an active lifestyle as a contributor to improved well-being aligns with a Japanese study that found a positive association between physical activity in rural areas and happiness and a sense of purpose.<sup>[35]</sup>

The concept of social security, encompassing governmental and institutional support, emerged as a significant theme all participants discussed. This sheds light on the risk factors for mental well-being identified in the previous literature, including financial distress,<sup>[36]</sup> health issues, chronic pain,<sup>[37]</sup> limited access to healthcare,<sup>[36]</sup> and a sense of marginalization.<sup>[38]</sup> Participants rightly identified these issues

as being “beyond their control,” highlighting the importance of systemic-level care that should be provided to farmers. The recognition by one participant regarding the importance of having mental health professionals specifically trained to work with farmers aligns with the findings of Rudolphi's study. The concept of social security, encompassing governmental and institutional support, emerged as a significant theme all participants discussed. This sheds light on the risk factors for mental well-being identified in the previous literature, including financial distress,<sup>[36]</sup> health issues, chronic pain<sup>[37]</sup> limited access to healthcare,<sup>[36]</sup> and a sense of marginalization.<sup>[38]</sup> Participants rightly identified these issues as being “beyond their control,” highlighting the importance of systemic-level care that should be provided to farmers.

The recognition by one participant regarding the importance of having mental health professionals specifically trained to work with farmers aligns with the findings of Rudolphi's study. In Rudolphi's research, it was observed that agribusiness professionals who interact with farmers face barriers such as a lack of training and confidence when it comes to addressing mental health concerns with their clients.<sup>[39]</sup>

The strength of this study is the utilization of a qualitative approach, which enables a comprehensive understanding of farmers' perspectives on mental health and well-being, providing valuable insights and allowing for the effective expression of their views, mental health, and well-being specifically in the context of farmers is a relatively novel investigation within the Indian population, where the previous studies have predominantly focused on identifying risk factors to address them. This study emphasizes the significance of a strength-based approach to mental health, highlighting the importance of identifying, and building on existing protective factors.

The limitation of the study is a smaller sample size to facilitate in-depth data collection and consideration of contextual factors. However, in the present study, the sample size was insufficient to validate all the identified themes fully. Female participants were not included in the research due to the unavailability of suitable candidates, resulting in a gender imbalance within the sample.

## CONCLUSION

The study successfully emerged three overarching protective factors that farmers perceive as significant for their mental health and well-being, namely, personal, social, and environmental. The study findings provide valuable insights for social work practitioners, guiding them in developing interventions and strategies to support the mental health and well-being of the farming population. In addition, the study's findings contribute to the existing body of research in this field, enhancing our understanding of the protective factors and their impact on farmers' well-being.

## Highlights

- There has been growing concern about the psychological hazards associated with farming, such as high stress levels, depression, anxiety, and increasing rates of suicide.
- It is imperative to understand the protective factors that contribute to mental and psychological well-being.
- The study emerged three overarching protective factors (personal, social, and environmental) that farmers perceived as significant for their mental health and well-being.
- The study findings provide valuable insights for social work practitioners, guiding them in developing interventions and strategies to support the mental health and well-being of the farming population.

## Ethical approval

The research study was approved by the Institute Ethical Committee at National Institute of Mental Health and Neurosciences, Bangalore, number NIMH/DO.BEH.SC. Div/2022-23.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

## Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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