

Psychosocial determinants and intervention strategies for farmer suicides in India - A systematic review

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Abstract: The purpose of this systematic review is to investigate the interplay of psychosocial determinants that contribute to farmer suicide, and also evaluates the efficacy of several intervention strategies that are targeted to lessen this unfortunate occurrence in India. A thorough review of literature was conducted using the theoretical frameworks, empirical research, and articles published between 1999 and 2024 on topic “Psychosocial determinants and intervention strategies for farmer suicides in India – A Systematic review” using the databases like PubMed, BMC and Google Scholar to uncover the relevant papers on psychosocial determinants of farmer suicides in India and intervention strategies for the same. Most frequently used keywords are “Psychosocial determinants, farmer suicide in India, mental health, intervention strategies, farmer welfare, agriculture distress” Inclusion criteria focused on empirical research, articles published within India, encompassing various psychosocial determinants and intervention strategies. Exclusion criteria filtered out non empirical publications, studies outside India, and those unrelated to psychosocial determinants of farmer suicides. The screening strategy involved categorizing search terms and systematically reviewing titles and abstracts. Preferred reporting items for Systematic Reviews and Meta-Analyses (PRISMA) flow charts documented the screening and selection process. Data verification ensured internal and external quality control. The results analyzed in the review showcase that financial hardship, mental health issues (such as anxiety and depression), social isolation, substance abuse, and family pressure, crop failure, are some of the key determinants that make farmers vulnerable. The crisis condition that characterises agriculture, policy neglect, and the lack of access to quality mental health services are further structural elements that exacerbate the problem. The review also examines a wide range of intervention measures, including financial aid, policy reforms, mental health counselling, community-based support networks, and suicide prevention initiatives. Numerous interventions have been explored with some hopeful results, but there is still a gap in effectively addressing the psychosocial causes of farmer distress, according to the results of the below studies evaluated. Further the review suggests a multifaceted strategy that addresses the emotional and economic difficulties faced by Indian farmers. It includes policy-level adjustments, mental health assistance, and community resilience building. This systematic research suggests that several psychosocial variables, including financial strain, covid-19 lockdown, mental health issues, social isolation, and family stressors, are relevant in the high rate of farmer suicides in India. Structural problems including policy neglect, unstable agriculture, and a lack of mental health care make these even worse. An integrated strategy that tackles the farmers' emotional and financial issues is still absent, despite the encouraging results of financial aid initiatives, legislative changes, and mental health services. A multifaceted approach that includes community resilience development, mental health resources, and policy changes is required for long-term assistance.

Keywords: Psychosocial determinants, intervention strategies systematic review, PRISMA & Meta-Analysis.

1. Introduction

Since the beginning of India's civilization, agriculture has been the pinnacle of community. In addition to having one of the largest arable areas and a favorable climate, it allows the subcontinent to produce a wide range of crops. The expansion of this industry is inextricably tied to the expansion of the economy overall, even in the face of today's fast urbanization. (sampathkumar, 2022). The number of farming-related suicides increased in 2022. According to the most recent data from the National Crime Records Bureau, which was made public on December 4, 2023, there were 11,290 such suicide cases registered nationwide last year.

Compared to 2021, when 10,281 fatalities were reported, this is a 3.7% increase. Compared to the 2020 numbers, this is a 5.7% increase. Thus, these 2022 figures highlight the horrific reality that at least one Indian farmer perished by suicide per hour. Since 2019, when 10,281

deaths were reported in NCRB data, farmers' suicide deaths have been on the rise

Thus, these 2022 figures highlight the horrific reality that at least one Indian farmer perished by suicide per hour. Since 2019, when 10,281 deaths were reported in NCRB data, farmers' suicide deaths have been on the rise (shagu, 2023). Suicides among Indian farmers, a sign of an agrarian crisis, have been one of the main grounds for concern in recent years. One such psychosocial intervention that is implemented specifically to address the psychological effects of adverse circumstances caused by farmers' agrarian distress is the Vidarbha Psychosocial Support and Care Program in western India. It employs a multifaceted approach to provide mental health care services to those in need, in conjunction with livelihood/employment support programs. (Vindhya, 2022)

1.1 Social determinants of farmers suicide in India

In India, farming is a financially risky profession because the yearly agricultural income is subject to several variables. Working on a farm can be physically taxing and even hazardous. The dynamics of managing a farm business and the regulatory environment are associated with psychological stress. However, economic hazards are the most significant. Over 80% of Indian farmers own less than two hectares of land. Even in the best of circumstances, farming is a risky economic endeavor due to its dispersed and limited holding. In actuality, the circumstances are scarcely the best. The farmers are deprived of the advantages of modern irrigation, mechanization, and other investment-based technological advancements due to the tiny size of holding immediately. As a result, the production is below ideal. India's irregular, decreasing rainfall pattern has a negative effect on agricultural productivity. Hailstorms and other weather whims can also cause significant crop loss. There is less labor available and it costs more now that people are moving from countryside to towns and cities. The current state of the market, the avarice of middlemen, the logistics of selling the goods, and other factors all affect the amount of money made from crops. The cost of production may occasionally not even be covered by the government-run MSP. For instance, the MSP for growing sugarcane is only INR 1000–1,100 per unit, despite the production cost being INR 900–1,000. On paper, it appears that the farmer will make a little profit. However, in order to finance their farming operations, the majority of small and marginal farmers are compelled to take out expensive loans, primarily from private lenders; in many cases, the interest rates range from 30 to 60 percent. As a result, MSP is insufficient when loan servicing is included, and things get dire if there is crop failure for any cause. After that, the farmers find themselves in debt traps. They need money to support their family, pay off their loans, and finance the upcoming farming season. They thus take out new debts. The cycle of debt intensifies. It is also possible to initiate loan recovery procedures, which often take a highly unethical stance, sometimes even crossing the line into criminal activity. For instance, there has been a noticeable transition to cash crops since economic liberalization. Additionally, more costly commercial hybrid seeds are being used instead of more affordable and resilient home-grown seeds.

In addition to being vulnerable to corporate regulation, farmers in this industry are particularly vulnerable to economic hazards related to the vagaries of nature and the agricultural market. According to a number of studies, at least 70% of impoverished cash crop farmers killed themselves, citing factors like debt, hyper commercialization, skyrocketing input costs, patterns of water use, and price volatility. (Rao. Et al, 2017)

Major causes of farmer suicide in india:

A rise in the total cost of agricultural inputs has occurred. On farms, seeds and chemicals—particularly insecticides and fertilizers—are becoming more expensive. The cost of inputs is rising even for farming equipment, such as pumps and tractors. The cost is rising due to the rising expense of renting labour and animals. Among the things that hinder agriculture's productivity are MGNREGA programs and increases in the minimum basic income. (byju's, 2022)

Unpaid bank debts were a factor in 2474 of the 3000 farmer suicides that were studied in 2015, according to statistics from the National Crime Records Bureau. Ironically, only 9.8% of the loans came from moneylenders, which is the opposite of what the general public believes (Nagpal et al., 2024). That might suggest that harassment and physical force by moneylenders are not the main motivators. The Bureau's data also demonstrates a high correlation between debt and farmer suicides. Karnataka and Maharashtra had the greatest rates of farmer suicides, but they were also among the states with the highest rates of suicides due to debt. (byju's, 2022)

Despite path-breaking government initiatives like e-National Agricultural Market (eNAM), eliminating or reducing the role of middlemen in this segment is proving to be more challenging than easy. Click on the linked page to know in detail about the e-National Agricultural Market. While there are schemes and policies aimed at helping farmers, a lack of awareness hurried by the literacy and digital divide in India are proving obstacles in bettering a lot of farmers, particularly the marginal and small ones. They either do not have any knowledge about those schemes, or they do not know how to avail themselves of the offered benefits from the government, so they suffer. (byju's, 2022)

A study of suicide statistics also shows that areas with limited water supplies, such as Maharashtra and Karnataka, have a higher suicide rate. Farmers' problems are only made worse by failed monsoons. Farmers are also unnecessarily distressed by interstate water issues (Rehman, Dhiman, & Cheema, 2024). Due to a lack of water, production demands have not been met. Farmers and agriculture are also being impacted by developmental developments. Crop losses have been caused by flash floods, unpredictable monsoon systems, etc. Regular production shortages are another effect of the postponed monsoon. (byju's, 2022)

India's economic policies are mostly driven by urban consumers, as evidenced by the need to implement price restrictions when prices rise (for example, by adding produce to the Essential Commodities List) and to remove them once they do. Such regulations hurt farmers' chances of escaping the debt cycle and lower their profit margins. Loan waivers are populist policies implemented by the government as part of its appeasement strategy to win over some voters. The government should priorities investing and restructuring initiatives to strengthen the primary sector above loan waivers. (byju's, 2022)

1.2 Mental health measures and awareness among farmers in India

There are numerous programs and strategies to prevent farmers from taking their own lives. For example, politicians and the media are discussing how to help farmers become debt-free, how the

government should lower the price of equipment and assist farmers in selling their produce at a profit, and other topics. The farmer's mental health, however, is the most crucial

element that is still absent in this situation. (Khalate, 2022)

Let's discuss the farmers in rural regions. Since most people in rural regions have cellphones and even know how to use WhatsApp, and because electricity and television sets have made their way to the countryside, why has psychoeducation not reached these areas of India?

Although there are psychiatrists working in rural villages and a few annual programs are held to educate the rural populace about the value of mental health, not all rural villages have seen these developments. We understand depression is a condition that is rarely observed.

Sometimes, farmers aren't even aware that their feelings aren't sadness, anxiety, or stress related. How can we expect people to reach out if they are oblivious to what it is?

Psychoeducation about neurotic diseases is therefore essential in rural areas.

When discussing the mental health of urban farmers, it is possible that they are aware of mental health difficulties, but they may choose not to seek help because of the stigma that persists. While it is true that not all suicide victims have depression, it is evident that those who experience depression are more likely to experience suicidal thoughts and act upon them. (khalate, 2022)

A '7D' model of triggering and confounding factors and a '7R' model of protective and preventive factors were developed by the researchers to help combat the issue of farmer suicides. The '7D' model encompasses the following: drugs, debt, disease, disputes, depression, disrepute, and death. What the '7R' model represents: It examines ways to prevent suicide. It comprises-Remunerative agriculture, Resilience building, Rational expenditure, Reassurance through connectivity, Righteous conduct, Religious support and Responsible reporting. (civildaily, 2020)

After years of legislative failures, it can be said that there is no one-size-fits-all solution to lessen the load on our farmers. Weather forecasting, crop identification and damage control, soil health monitoring, and mapping of accessible water resources are all expected to improve with the use of information technology(Nagpal et al., 2024). Improving marketing and logistics will significantly increase the portion of money that farmers receive from the price that consumers pay for food. The states must change their outdated farm produce marketing regulations that have reduced farmers' profits, even as the government uses technology to link farmers to a national e-market. It might also be necessary to address the long-standing issue of price signals not adjusting supply and demand. Reforms, not cash transfers, debt waivers, and the like, are the way to go if agricultural earnings are to increase. (civildaily, 2020)

1.3 Intervention strategies for farmer suicides in India

In India, around 12,000 farmers take their own lives each year. The information covers the years 2013 and later. In India, farmers commit suicide on a regular basis. Farmers' suicides account for 10% of all suicides in India. 87.5% of suicides in the farming industry occur in seven states in the nation. Telangana, Karnataka, Chhattisgarh, Madhya Pradesh, Tamil Nadu, Andhra Pradesh, and Maharashtra are among them. Of these states, Maharashtra has the largest numbers. Marginal farmers are not the only ones that commit suicide. Suicides are happening even among small farmers (Rehman, Dhiman, & Cheema, 2024). There have been some farmer suicides even in Punjab, the state that gained the most from the Green Revolution. Punjab reported 4687 farmer suicides between 1995 and 2015, with 1334 suicides reported in the Mansa district alone. In 2012, 25% of farmer suicides nationwide occurred in Maharashtra alone. reducing agriculture's reliance on the natural world. using a variety of water management techniques. Crop failure should be avoided by the state. (byju's, 2022)

It is imperative that all farmers, particularly those in poverty, have access to institutional financing. lowering red tape in this area and putting in place efficient oversight systems that will guarantee that

the loan was taken out by the impoverished farmer and not a front, even though the true recipient may be a larger landowner. Farmers should receive timely and efficient advice on cost-effective farming practices. Poor farmers should also have access to agricultural technology advancements (Akula et al., 2024). Additionally, the government ought to combine small farmers' properties and turn them into larger, commercially viable land areas. Small farmers should receive training and advice on alternative revenue streams. Relief should not just be provided; it should also help farmers' families maintain a means of subsistence. In Andhra Pradesh, some farmers killed themselves so that their family might get the aid shipments. There isn't a single, foolproof way to ease the strain on our farmers. Following thorough discussion with all parties, the government will develop long-term policies that will lower farmer debt, increase crop yields, guarantee appropriate water management and provide farmers with additional revenue streams. (unknown n.d)

What measures are taken by the government of India?

The Central government has initiated several schemes in recent years, including PM Fasal Bima Yojana (PMFBY), PM Krishi Sinchai Yojana (PMKSY), electronic National Agricultural market (e-NAM), Soil health card, Neem-coated urea etc. Agriculture is a key sector under Priority Sector Lending (PSL) and the target for bank lending to the sector has been enhanced every year. Apart from food subsidy under PDS, round every year the fertilizer subsidy is provided by the government. Announcement in budget 2018 for farmers Union Budget announced MSPs at 50 percent above the cost of production. It proposed initiation of "Operation Greens" in the agriculture sector on the same lines of the milk sector's "Operation Flood". It shall be used for promoting a highly perishable commodity such as tomato, onions, potato, etc. which go through severe fluctuation in prices. Provide parallel marketing infrastructures by upgrading the present 22,000 rural haats into Gramin agricultural markets (Rehman, Dhiman, Nguyen, et al., 2024). These mandis would be kept out of the purview of the APMC regulations to ultimately enable them to sell directly to the consumers and bulk purchasers. It also incentivizes farmer producer companies and co-operatives by fully exempting their profits from income tax. It attempts to promote agriculture's allied activities such as animal husbandry and fisheries, which are more gainful than crop farming. The budget also proposes to provide a Kisan credit card-like facility to those engaged in these ventures. (unknown. N.d)

Keywords: Psychosocial determinants, mental health, intervention strategies, farmer suicide, agrarian distress, farmer welfare.

2. Material and Methods

2.1 Data source & eligibility

To gather pertinent literature on the psychosocial determinants and intervention strategies for farmer suicides in india, a systematic search was conducted using PubMed, BMC BioMed central, & Google scholar. These databases were chosen for their extensive coverage and inclusion of high quality, peer-reviewed studies within fields of psychology, social sciences, and public health, ensuring access to the most relevant research in this area. Inclusion criteria for studies were as follows: (a) a focus on psychosocial or mental health factors impacting farmers in india, (b) presentation of original quantitative, qualitative, or mixed methods research, and (c) the papers that were published in English language only were included. Studies were excluded if they lacked peer review, focused on populations outside of india, or were not directly related to the psychosocial aspects of farmer suicides, to maintain relevance and rigor. To retrieve every article that is included in the study a critical review was conducted.

2.2 Inclusion criteria

In order to choose high-quality, pertinent research that addressed the psychosocial elements of farmer suicides in India, inclusion criteria was established. Research had to concentrate on psychosocial and mental health issues, specifically looking into elements like stress, depression, social isolation, family dynamics, financial stresses, and mental health issues among Indian farmers. Scoping was also done for research that looked at how coping strategies, stigma, and social support affect farmers' mental health. Eligible papers for systematic review were required to present original research employing quantitative, qualitative, or mixed methods approaches, to cover a diverse range of empirical evidence. For ease of access and consistency in relevance, only English-language studies were included.

Only peer-reviewed work, studies focusing only on population of india, and those related to the psychosocial determinants of farmer suicides were included to uphold relevance and rigor in the review.

2.3 Exclusion criteria

In order to ensure a focused evaluation, the exclusion criteria was established to weed out research that did not concentrate on the psychosocial aspects of farmer suicides in India.

Studies that did not include a psychosocial or mental health component and just focused on agricultural economics, policy frameworks, or agrarian crises were not included. To keep the results applicable, studies that focused on non-farming populations such as those that examined rural communities generally without a particular focus on farmers were also excluded. To preserve an empirical evidence base, articles that did not contain original data such as editorials or literature reviews were also disqualified. Furthermore, to maintain a standard of accuracy and diligence, research that was not published in peer-reviewed journals was excluded. Finally, to maintain consistency and accessibility across the study, studies published in languages other than English was not included. By using these exclusion criteria, the study's focus was reduced to those that offered valuable perspectives on the mental and social health issues affecting Indian farmers who are at risk of suicide.

2.4 Screening strategy

Two main steps were involved for selection of articles for the review:

Step 1: The search process was taken out depending on the decided inclusion/exclusion criteria On databases such as PubMed, BMC BioMed Central, & Google scholar focusing on themes like psychosocial determinants, farmer suicide in india, intervention strategies, mental health of farmers, agrarian struggles, and the Indian context. Then these terms were systematically employed to screen study titles and abstracts. Studies that did not align with psychological, social determinants and intervention strategies were excluded for further analysis. After reviewing the titles and abstracts of the studies retrieved from the relevant electronic databases

the search terms were searched using the Boolean “AND” operator to find the above mentioned key concepts.

Table 1: Planned search terms and criteria for review

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Field	Search terms

Abstract	Psychosocial determinants AND Mental health AND Farmer suicide AND Government intervention AND community programs to prevent farmer suicides in India.
Abstract AND	(Psychosocial determinants AND mental health AND Farmer suicide) AND (Government intervention AND Community programs AND coping mechanisms AND policy neglect)
Any Field AND	Qualitative AND interview AND focus group AND lived experience AND Research on Psychosocial determinants of farmer suicide in India AND Intervention strategies for farmer suicide in India.

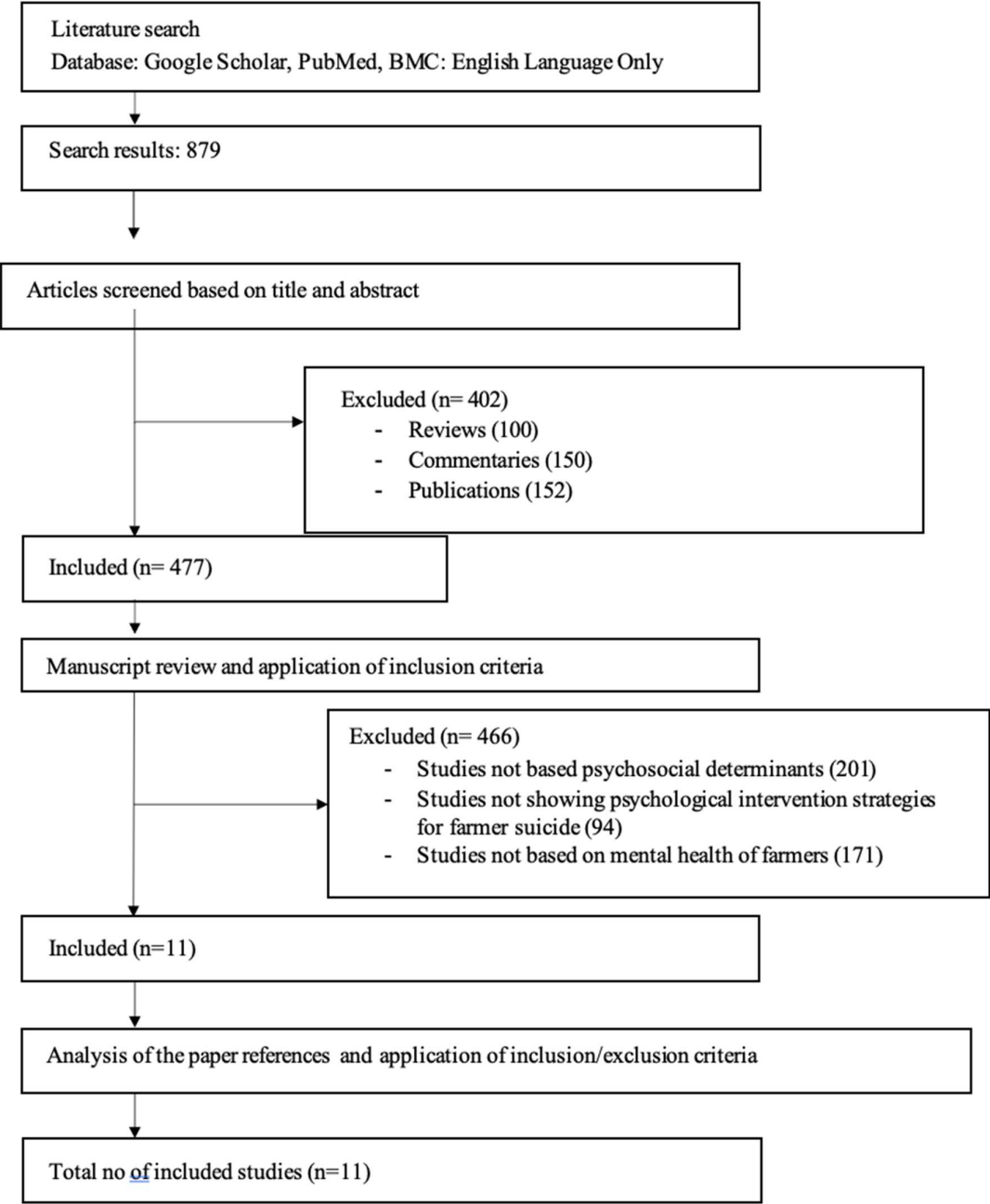
Step 2: The eligibility and methodological quality of the studies was evaluated through a in- depth screening of the full text articles. Studies that failed to matched the criteria for inclusion were excluded with clear objections for disqualification. A PRISMA (Preferred Reporting Items For Systematic Reviews and Meta-Analyses) flowchart was used to systematically track the number of studies reviewed, screened, included or excluded, ensuring the accuracy in the selection procedure. A reference lists of the relevant studies was examined to capture a more comprehensive review of the literature.

2.5 Data verification for consistency

To guarantee data consistency, data was collected systematically and entered into a Microsoft Excel spreadsheet. To prevent inaccuracies internal audits and external quality control was conducted. Cross-referencing against original sources and maintaining the findings' alignment with the study's central theme—psychosocial factors and intervention options for farmer suicides in India—constituted validation.

3. Results

3.1 literature search



3.2 psychosocial determinants and intervention strategies for farmer suicides in India

Study	Title	Study design	outcome
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<p>Laila memdani et al., (2022)</p>	<p>Farmers' suicides in India: A Qualitative study of Andhra Pradesh (AP) and Telangana states of India</p>	<p>This study offers explanations that States like Andhra Pradesh and Telangana have been closely linked to farmer suicides in India; it is now generally accepted that economic stresses, rather than mental health issues, are the primary cause. Indeed, it is clear that the high suicide rates among farmers have been influenced by cheap availability to pesticides. In this field, research is conducted using both quantitative and qualitative methodologies, with quantitative analysis predominating over qualitative analysis. Important characteristics that have been identified by the variation in farmers' suicide risk include age, gender, debt levels, crop varieties, and irrigation availability. To fully understand the situation, an approach that aims to go above and beyond must take gender and sociocultural perspectives into account. The establishment of central pesticide storage facilities and advancements in the agricultural industry have also been proposed as alternatives.</p>	<p>According to the paper it can be concluded that The government should take action to address the situation; it is urgent and serious. The economy will suffer greatly if that is not completed on schedule. In actuality, the younger generation is moving to cities and losing interest in agriculture as a result of these occurrences. Our food security will be in jeopardy if this keeps up. In addition, migration from rural regions is causing a lot of issues in urban areas, including unemployment, which will make the already high unemployment rate worse. Farmers are entrepreneurs, and this attitude should not be suppressed simply because there are no safety nets. As a result, the government needs to implement a robust safety net program for farmers.</p>
<p>Sumant kumar et.al, (2022)</p>	<p>A sociological study patterns and determinants of farmer suicide in India.</p>	<p>This study investigates that In India, farmer suicide has been a persistent issue, with Maharashtra and Karnataka continuing to be the states with the highest rates. Numerous research tackled the issue from a variety of angles, including ecological models, socioeconomic perspectives, and mental health. Research indicates that anxiety and insomnia, which are particularly prevalent signs of mental health problems, affect over half of farmers in Maharashtra's Vidarbha region. Low levels of education, tiny landholdings, bad economic conditions, debt, and associated health issues are the main causes of farmer suicides.</p>	<p>The study's findings suggested that, although there was a significant trend in some regions, such as Maharashtra and Karnataka, the frequency of farmer suicide in India has steadily declined over the past ten years. Based on the socio-ecological paradigm, the study investigated how a farmer's social system, which includes both individual and societal characteristics, directly affects their likelihood of committing suicide. In fact, it was shown that a person's likelihood of committing suicide decreased with the strength of their relationship with their microsystem.</p>

		Due to decreased income and the depletion of the family estate, a farmer's death might cause significant losses for the family. Fair prices for agricultural products, better irrigation systems, and addressing the general socioeconomic issues in the large regions where farmer suicides have been documented are some of the suggested preventive strategies.	
Shriya khalate, (2022)	R How to prevent farmer suicide in india?	<p>According to this paper One of the main causes of the hundreds of farmers who commit suicide in India each year is their inability to repay their debts. This situation in India is commonly referred to as "farmer suicide." This has led to an extremely high prevalence of farmer suicide. Historically, one of</p> <p>India's primary industries has been agriculture. The farming and</p>	<p>The outcome was given that two-thirds of India's population depends on farming or the agriculture industry for a living, these farmers commit suicide at a higher rate than in any other nation. Almost no one looks up for the two-thirds of</p> <p>India's people that are constantly exposed to</p>
		<p>agriculture industries provide a direct source of income for almost half of India's population. Even though there are more people working in agriculture in India than in any other nation, the suicide rate among farmers is still among the highest in the world.</p>	<p>poverty and hardship. The number of suicides has increased annually as a result of crop failures, growing expenses, mounting debt, low income, and a lack of mental health help. Farmers deal with huge obstacles on a daily basis. Given the roots of their mental health problems, it is not surprising that their employment and livelihoods are continuously in danger as an indirect result. Where more is now required. More serious attention is now required in the areas of offering farmers mental health care packages and, more importantly, stepping up psycho-education initiatives.</p>
Rishi dev	The silent	This study tracks a serious national	<p>The outcome for the paper says that India's rising farmer suicide rates necessitate prompt and comprehensive action. The agrarian crisis is caused by a complex combination of sociocultural and mental elements, as certain</p>

			<p>alarming figures make clear. Small landholdings, financial strains, market accessibility issues, climate change, and a lack of mental health services are just a few of the persistent problems that Indian farmers confront, making them more vulnerable. It is a crises that highlights larger systemic</p> <p>issues with policy and</p>
jaryal et.al,	struggles:	dilemma is highlighted by the	
-2023	unveiling the	increase of farmer suicides in	
	psychology	India, where almost 10,000 farmers	
	behind the	commit suicide each year. The	
	alarming rise	National Crime Records Bureau	
	of farmer	says the tragedy is rooted in a	
	suicide in	complicated web of mental health	

	india.	difficulties, crop failures linked to climate change, and socioeconomic	
		problems. Due to their small	
		landholdings, high input prices,	
		and restricted market access, many	
		farmers end up in debt traps. Their	
		despair is exacerbated by crop	
		losses brought on by climate	
		change. Their risk is increased by	

		social isolation, stigma around	
		mental health, and a lack of easily	
		accessible mental health resources.	
		Women farmers are more likely to	
		commit suicide because they must balance agricultural and household responsibilities. In order to promote practical remedies for this pressing public health concern, this paper advocates for a deeper comprehension of these unsaid battles.	society attitudes rather than just personal decisions. The effects of farmer suicides are multifaceted; they affect not just the farmers but also their families, especially women, who endure significant socioeconomic responsibilities and find it difficult to cope with the loss and self-harm brought on by self-inflicted death.
Justin P. Jose et.al (2010)	Socio- psychological factors and suicide behaviours among farmers	The study examined using the theoretical premise that mental stress and socio-psychological elements are linked to suicidal behaviour, the study explores the nature of suicide behaviours as well as the social and psychological aspects that contribute to mental stress and suicidal behaviour. The study carried out in the Keralan district of Kannur provided the empirical data that served as the basis for this paper. Thirty farm labourers who had previously tried suicide made up the study's sample. Poor living conditions, financial stress, work- related stress,	According to the findings of the study it is suggested that many suicide attempt survivor faced great financial difficulties, which caused them high levels of stress and suicidal behaviours. Furthermore, the stress was worsened by the sense of failure in repaying debts. The connection between financial hardships and increasing suicide attempts, particularly among farming communities across India, must be understood within the effects of globalization. Rapid socio-economic changes and rising unemployment are likely making those effected more

		household burden, and pressure in interpersonal relationships both inside and outside the family are the main stressors that lead to suicide behaviour.	vulnerable to suicide-related behaviours.
Dominic merriott. (2016)	Factors associated with the farmer suicide crisis in India	This paper examines the risk factors that contribute and are often associated with suicides in farmers. In this study a literature search was carried out from multiple electronic databases and presents the review of key results. This paper suggests that there's a particular suicide crisis among farmers in recent years Aswell.	<p>The study discovered that explaining a single cause for farmer suicide in India is impossible, especially when there is an absence of literature on it. Majorly indebtedness can be identified as major reason for farmer suicide.</p> <p>Socioeconomic landscape has left many farmers vulnerable at the mouth of self harm.</p> <p>In the study the primary cause, Bt cotton, doesn't seem to play a significant role neither does mental illness. Instead, agrarian crisis explains the farmer indebtedness and the increased rates of suicides in farmers.</p>
Terasa younker & Heidi liss radunovich, (2021)	Farmer mental health interventions: A systematic review	The PRISMA protocol, which is based on the JBI recommendations, was followed in reporting this systematic review of the literature, which was carried out without any prior protocol registration. "What are the interventions aimed at improving farmers' mental health that have been reported in the academic literature, and what is the evidence about their effectiveness and limitations?" was the issue it sought to address. In an attempt to methodically predefine qualifying criteria, the PICOS approach—a variant of the PICO framework— was employed. The World Health Organization's concepts of mental health, mental illness, mental health promotion and protection, and mental health care and treatment served as the basis for the PICOS approach. Between May and	<p>According to a review, very few farmer mental health interventions have received a thorough evaluation, even though there have been many and a wide range of them implemented worldwide over the past 50 years. This is especially true for the numerous initiatives put in place both during and after the American Farm Crisis. The most consistent evaluations are of mental health literacy programs, however construct validity has not been proven.</p>

		August 2021, the author searched	<p>Although the evaluations of the community-based and agroecological participatory research initiatives covered in this issue seem to have high validity, their</p> <p>dependability is a little off.</p>
		the following five electronic databases for peer-reviewed academic articles: PsycINFO, PubMed, Scopus, Agricola, and Google Scholar.	<p>In fact, despite the fact that many of these programs showed high exposure among farmers, any empirically informed conclusion on varying degrees of success is prohibited by the regrettable lack of adequate evaluation and significant inconsistency across</p> <p>interventions.</p>
Prakash B Behere et.al (2021)	Psychosocial aspects of suicide in largest industry of farmers in Vidarbha region of Maharashtra	<p>A matched case-control psychological autopsy study was conducted to determine the risk variables for farmer suicides in central rural India. Behere et al.'s study sought to identify key risk variables that would generally address the socioeconomic and psychological elements that contribute to farmer suicide in Maharashtra's Vidharbha region. Psychological autopsy reports from the relatives of the deceased victims in the Wardha district of the Vidharbha region were used to obtain the sample. 98 samples of age and occupation-matched controls and 98 samples of suicide victims were gathered from the same villages. The study lasted one year, from April 1, 2007, to March 31, 2008. A team consisting of a psychiatric assessment-trained psychologist and a resident psychiatrist visited the pre-selected families using a modified, field- tested version</p>	<p>The foundation of India's economy, farmers are under tremendous financial and psychological strain due to debt, social pressures, and poor health, which leads to a high suicide rate. 5,957 farmers committed suicide in 2019 despite receiving some government assistance. Though much more research is needed to fully understand these and other issues with great trepidation, studies often highlight the need for solutions that address financial constraints, mental health issues, and life stressors as well as assisting the families of those afflicted.</p>

		<p>of a semistructured interview schedule that the investigators had created. Using suitable scales and Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (TR)</p> <p>diagnostic criteria, the suicide cases were retrospectively assessed for</p>	
		<p>the history of alcohol and psychoactive substance abuse as well as comorbid psychiatric illness, in addition to the necessary demographic data.</p>	
<p>K.V</p> <p>asthalatha &</p> <p>N. Rajeshwari (2018)</p>	<p>An overview on farmers suicides in india and intervention to curb</p>	<p>The study's unique objective-specific information was gathered from a variety of sources using secondary data on farmer suicides. Newspapers, stories, and the responders or relatives of the suicide victim were gathered for evaluation. The purpose of this review article is to provide an overview of farmer suicides</p>	<p>Although agriculture plays a significant role in India's economy, its share of the nation's GDP has been steadily decreasing over time. Farmers are among the most likely to commit suicide as a result of the strains brought on by globalisation, rising costs, and debt. In the previous 16 years, the number has surpassed 260,000. The main causes of this include mental instability, bad loan practices, and financial stress. Suicide rates are very high in developed districts, but they are lower in drought-prone areas since people are used to dealing with any catastrophe. Along with the provision of high- quality seeds, storage facilities, affordable crop insurance, and encouragement of related activities, the government's various irrigation programs will lessen the burden</p> <p>of will lessen farmers' financial loss burden.</p>

<p>Sayijya saju et.al (2024)</p>	<p>Farmers's mental health and well-being: qualitative finding on protective factors</p>	<p>The study used Purposive sampling was used to choose the necessary samples from the Chikkaballapur District in Karnataka as part of an exploratory study design. Nine farmers were interviewed in accordance with the inclusion and exclusion criteria. The literature research served as the basis for creating the interview schedule.</p> <p>Face validation and content were completed by subject-matter specialists. QDA Miner's free edition was used to code the transcribed data. Thematic analysis was used to analyse the data.</p>	<p>Three primary protective factors—personal, social, and environmental—were found to be crucial for farmers' mental health and wellbeing. Personal characteristics that help farmers function on their own include resilience, a good outlook, autonomy, a strong life purpose, a love of work, problem-solving abilities, and spiritual beliefs. Social aspects emphasise the value of peer groups, family, friends, and a sense of belonging through social interactions, all of which lessen feelings of loneliness. Environmental considerations highlight the stability and affirmation that come from an active lifestyle, rural living, government support, and social acknowledgement. When combined, these insights help social workers create focused plans to enhance these protective variables and promote the resilience and mental health of the farming community.</p>
<p>Ashwini suraj devadiga & amith S M</p> <p>-2023</p>	<p>Farmer suicides in India and the road to resilience</p>	<p>This research work is based on secondary data, and it uses a mixed-method approach that incorporates both quantitative and qualitative data. Government publications, agricultural statistics, and pre-existing databases on farmer suicides can all provide secondary data for this. The different data analysis techniques used in this study are related to secondary data sources: the geographic pattern and regional variation in suicide rates will be determined by analysing state-by-state data on farmer suicides. While the involvement of NGOs would be reviewed by an analysis of activities and case studies from existing records and reports, government initiatives would be evaluated using a combination of statistical analysis and policy evaluation.</p>	<p>The study found that</p> <p>the alarming reality that India's 260 million workers commit suicide at a rate of around 30 each day. Given that they work in agriculture, it serves as a sobering reminder of the dangerous circumstances they are in. Added to the unexpected Particular issues related to the Green Revolution include possible health issues and</p>

			environmental deterioration. In these villages, the dangers of chemical exposure and crippling debt have taken root. catastrophes. Climate change has made this situation worse, and bad weather is contributing to an unprecedented increase in farmer suicides, especially in areas like Punjab that depend heavily on agriculture.
Harprit kaur et.al (2023)	Mindfulness skill of dialectical behaviour therapy in the prevention of suicidal ideation among older farmers in punjab.	<p>The current study examined how well DBT's mindfulness techniques reduced suicide thoughts, psychological distress, helplessness, hopelessness, and low resilience among the state's elderly farmers. It was predicted that DBT's mindfulness techniques would improve resilience and lessen psychological distress, hopelessness, helplessness, and suicide thoughts in Punjab's elderly farmers. Of the 285 elderly farmers who took part in the study, 46 older farmers, ranging in age from 65 to 82, from various villages in the districts of Fatehgarh Sahib,</p> <p>Patiala, Sangrur, Gurdaspur,</p>	<p>The study showed an evidence that supports the therapeutic relevance of mindfulness-skill based DBT in the geriatric farmers of Punjab rural community. The old aged farmers experienced quick and steady decreases in suicidal thoughts, psychological distress, hopelessness, helplessness, and resilience. The present study is also relevant for educational and community settings.</p>
		<p>Faridkot, Barnala, Bathinda, and Mansa in Punjab, were selected based on their Suicide Behaviours Questionnaire-Revised threshold score (SBQ-R, Osman et al. 2001). For six weeks in a row, the aforementioned 46 senior farmers received intervention. The sample's mean age was 69.87 years old, and the subjects provided their informed consent (65-82). Suicidal ideation/behavior, frequency of suicidal ideation, intent to communicate suicide, and chance of future suicide are the four elements of suicidality that are</p>	

		evaluated by the 4-item SBQ-R.	
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4. Discussion

The associated psychosocial causes and therapeutic methods for this tragic issue are thoroughly examined in the systematic review on farmer suicide in India. The primary reason of farmer suicides is still financial difficulties, which are mostly brought on by rising agricultural input costs that lower yields and force farmers to take out high-interest loans from commercial lenders, trapping them in a debt cycle they are unable to escape (kaur et.al, 2023). This financial strain is especially severe in states like Maharashtra and Karnataka, where tiny landholding sizes and market accessibility combine with economic instability to create an environment that is not favorable for small-scale farmers. where mental health conditions including anxiety, sadness, and sleeplessness are present. According to reports, over 50% of farmers in places like Vidarbha had symptoms, which were accompanied by debt and a lack of mental health care. (Vindhya, 2022)

Furthermore, social and structural factors including family responsibilities, loneliness, and the stigma attached to mental illness have contributed to the high suicide rate up to this point. Women farmers, who frequently handle both domestic and agricultural responsibilities, are particularly vulnerable to it because they are forced to balance the demands of economic and physical participation with family responsibilities, which further raises their risk of suicide (unknown. N.d).

All of these problems are made worse by insufficient government assistance. When there is legislative support to guarantee stable income, such as through programs like the MSP, it typically falls short of providing full cost-of-production coverage and forces farmers to take out high- interest loans. It places farmers in a situation where they have no institutional support, making the negative effects of crop failures, poor prices, and natural disasters worse (Rao. Et al, 2017).

This review assesses the many intervention measures used to reduce these suicides. These include monetary measures like direct subsidies and debt waivers that, although beneficial in the near term, lack the systemic reach necessary to maintain long-term change. The Vidarbha Psychosocial Support and Care Program is one of several mental health programs in this area (Vindhya, 2022). It combines counselling with financial assistance to try to meet the mental health needs of farmers and is a promising model for integrating care. But according to reports, these kinds of interventions are irregular and not available to all farmers, particularly those who live in isolated or marginalized regions of the country (civildaily, 2020).

Therefore, the review emphasises that a thorough and well-coordinated strategy is necessary. It promotes policies that would provide financial security and mental health care, create community-based support systems to fight loneliness and isolation, and provide access to programs that lessen stigma by raising awareness of mental health issues. Since the issue is addressed from a variety of angles, including enhancing financial assistance, mental health, and community resilience, the endeavour may have been continued to lower the suicide rate among Indian farmers and promote their livelihood and general well-being (kaur et.al, 2023).

5. Conclusion

According to this systematic review, co-existing mental and economic vulnerability as well as a Structural lack of safety nets are the main causes of farmer suicides in India. This result gives the West immediate reason to act on the "conclusion." More particular factors that contribute to farmers' "ridiculously high" suicide rate include familial pressures, mental health challenges, social isolation, and compounding factors like the COVID-19 lockdown. The issue also stems from long- standing structural issues that, despite not being new, get less policy attention than other issues

like the instability of the agriculture industry or limited access to mental health care. The outcomes just lack that much-needed synergy, even while several interventions from financial assistance to regulatory reforms to the provision of mental healthcare have had positive benefits on their own. According to the evaluation, a cross-government approach is needed to address the financial and psychological strain that farmers face. Concluding the review, it can be said that community resilience building, accessible mental health resources, and policy level changes are some of the elements ensure long term support to farmers and helps alleviate the distress that leads to farmer suicides in India.

6. References

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