

REVIEW ARTICLE

Examining The LASI Data on Mental Health among the Ageing Population: A Comparative Analysis with Primary Data

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ABSTRACT

Objective: This study aims to examine the mental health of India's ageing population by correlating national trends from the Longitudinal Ageing Study in India (LASI) with local primary data. Specifically, we aim to assess depression, cognitive impairment, loneliness, and the contextual influence of chronic sickness, gender, and socio-economic variables.

Method: A cross-sectional comparative design was employed. Secondary LASI survey data were compared with primary data acquired using a LASI-based survey tool given to older adults living in urban and rural areas. Descriptive comparisons and multivariate regression were conducted to assess how socio-economic and health and service-related variables influenced mental well-being.

Analysis: The results indicated that the prevalence of depressive symptoms, insomnia, and emotional disconnect in the primary data was greater than expected based on LASI. Older aged women (particularly widows) and older adults who were suffering from chronic disease or restrictive access to services were at increased vulnerability. MANOVA analysis demonstrated consistent linkages between the mental health outcomes to cognizance to ageing-related resources and accessibility to health services, rather than income or education.

Conclusions: The research highlights an underlying gap in mental health care among the elderly in India, and particularly among women and rural individuals. This report recommends gender-sensitive community-based mental health interventions, and that psychological care is better integrated with primary geriatric services.

KEYWORDS

• Elderly Mental Health • Ageing and Well-being • Geriatric Healthcare Systems
• Depression • Dementia • LASI • Gender and Mental Health • Caregiver Burden

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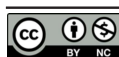
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INTRODUCTION

Mental health is a vital aspect of human well-being, shaping attitudes, relationships, and the ability to carry out daily activities. Yet globally, and especially in India, the psychological needs of older persons remain marginalized. Psychological distress among the elderly is often misinterpreted as a natural part of ageing, leading to systemic underdiagnosis and neglect. Consequently, a large proportion of older adults live with untreated depression, anxiety, or cognitive decline. The rise in global life expectancy has intensified concerns regarding the mental well-being of ageing populations. According to World Health Organization (WHO) estimates, nearly 15% of people aged 60 and above suffer from a mental disorder, with depression and dementia being the most prevalent. Despite their scale, these conditions are severely underreported due to stigma, lack of awareness, and limited access to care. Compounding these issues are age-related vulnerabilities such as physical frailty, social isolation, financial hardship, and bereavement, which heighten psychological stress for both the elderly and their caregivers.

High-income countries have taken steps to integrate geriatric mental health into primary care systems, often supplemented with outreach services and specialized programs. By contrast, progress in low and middle-income countries, including India, has been slower. Structural inadequacies in mental health infrastructure, persistent cultural stigma, and the dominance of physical over psychological health priorities have created a silent but mounting crisis among India's elderly. India's demographic transition underscores the urgency of this challenge. The population over 60 years already exceeds 140 million and is projected to double by 2050. While increased longevity reflects improved healthcare and living standards, it also brings new complexities in eldercare, particularly mental health. Ageing often involves a loss of autonomy, income, social standing, and close relationships factors that can trigger or exacerbate mental health conditions.

Older women are particularly vulnerable. High rates of widowhood, economic dependency, and unequal access to healthcare compound their risks. Those in rural communities face even greater challenges due to limited resources. Physical comorbidities such as osteoporosis, arthritis, and cardiovascular

disease further aggravate their psychological burden. Similarly, cognitive conditions like dementia remain poorly understood, with symptoms frequently dismissed as normal ageing. This misconception delays diagnosis and exposes patients to inadequate caregiving, often managed by untrained family members at risk of burnout and secondary trauma.

Despite policy frameworks like the National Mental Health Policy (2014) and the Mental Healthcare Act (2017), service delivery remains fragmented and predominantly urban-centered. Mental health issues among older adults rarely figure in public discourse or policymaking, reinforcing their invisibility within the healthcare agenda. Girish *et al.* (2020) estimate that India has fewer than one geriatric mental health specialist per million older citizens, with rural populations particularly underserved. Stigma worsens this gap, as many elderly internalize suffering as part of ageing, deterring them from seeking help (Patel *et al.*, 2018). Community and social structures play a crucial role in elderly well-being. Those living in joint families or with frequent social interactions tend to report better emotional health (Srivastava & Srivastava, 2023). However, rapid urbanization and the breakdown of extended families are leaving many older adults isolated, neglected, or even abused (Thennavan *et al.*, 2022). LASI data confirms the strong association between social isolation and mental distress.

Addressing these challenges requires a multi-pronged, interdisciplinary approach. Routine mental health assessments must be embedded in geriatric care, with health workers trained to detect depression, anxiety, and cognitive decline (Prince *et al.*, 2012). Public awareness campaigns targeting rural and semi-urban areas are essential to dismantle stigma and encourage help-seeking behavior. Vulnerable groups such as widows, the chronically ill, and socially isolated elderly require tailored interventions financial support, peer counseling, and safe community spaces (Banerjee & Baker, 2020). Evidence from programs like the UK's IAPT and the U.S.'s PEARLS demonstrates that culturally adapted community based models could be highly effective in India. Equally important is caregiver support. Family members remain the primary caregivers, often without training or resources. To prevent burnout, they require

emotional support, practical training, and structured respite opportunities. Digital technologies such as telepsychiatry, helplines, and mobile health apps (Lee *et al.*, 2019) can extend services to rural populations while also supporting caregivers.

Large-scale projects like the Longitudinal Ageing Study in India (LASI) have generated valuable quantitative insights into the status of elderly health. However, numbers alone cannot capture the lived realities of ageing, which include grief, identity renegotiation, and changing social roles. This research, by comparing LASI data with primary data collected through interviews and surveys, seeks to bridge that gap. It contextualizes statistical patterns within the lived experiences of older adults, offering a more nuanced picture of late-life mental health.

Ultimately, improving geriatric mental healthcare in India requires an empathetic, evidence-based, and action-oriented framework. Ageing should not be equated with silent suffering or social invisibility. By investing in gender-sensitive, community driven, and inclusive approaches, India can ensure that its elderly population not only lives longer but also with dignity, resilience, and psychological well-being.

LITERATURE REVIEW

Aging is a natural and unavoidable stage of life, but how people experience it depends significantly on their health, social relationships, economic status, and access to care. In India, a nation with a rapidly aging population, it has become important to understand the needs and challenges of older persons in order to design policies and interventions that can promote their dignity, well-being, and proper support. The Longitudinal Aging Study in India (LASI), an elaborate study with a sample size of more than seventy-two thousand individuals, gives much insight into Indian realities of aging. Through examination of physical and mental health problems, cognitive loss, social disconnection, as well as abuse, LASI illuminates older people's individual needs and changing caregiving traditions.

One of the largest challenges to older adults in India is cognitive loss, specifically dementia. Dementia is frequently misinterpreted as a natural process of aging, but it is actually

a severe medical illness that should be diagnosed and treated promptly. A study conducted by Gross *et al.* (2023) finds that although dementia seems to be less common in India than in Western nations, this could be a result of underdiagnosis and not because there is a lower incidence of the disease. Cognitive decline is more frequently screened for in high-income nations, but in India, cognitive deterioration is viewed as a natural process of aging and a lot of people don't seek or get appropriate treatment. This underdiagnosis leaves families shouldering the escalating care burden unsupported and without the necessary resources.

Identifying this void, the LASI-Diagnostic Assessment of Dementia (LASI-DAD) was launched to enhance early detection and give methodical diagnostic aids. Even with these initiatives, dementia care is still not easily accessible, particularly in rural regions, where healthcare facilities are limited. Families cannot afford to seek professional assistance, and the stigma attached to cognitive impairment makes it difficult for people to talk about, and even seek treatment for, memory loss and associated features. To treat dementia, India requires a multidisciplinary approach consisting of early detection programs, public campaigns, and strong caregiver support programs.

In addition to cognitive health, mental well-being is another essential part of aging that tends to be neglected. Physical, emotional, and social adjustments that accompany aging retirement, poor health, and the death of friends and family can result in loneliness, depression, and anxiety. Banerjee & Baker (2020) discovered that older adults with strong social connections, financial resources, and active lifestyles have higher levels of satisfaction with life. Nonetheless, a majority of elderly persons, especially women, encounter difficulties such as economic dependency and caregiving responsibilities that mostly overlook their needs. According to a study conducted by Panda *et al.* (2023), it is notable that Indian elderly women are specifically susceptible to depression due to economic dependency, caregiving loads, and societal expectations to put their needs second to their families'.

Loneliness has become a prevalent problem among the elderly, exacerbated in many instances by widowhood, mobility issues,

and reduced rates of visiting family members. Srivastava & Srivastava (2023) discovered that elderly individuals deprived of social outlets experience increased predisposition to mental distress. This serves to underscore the value of elderly community support programs, as such programs can offer the social contact and support required to reduce feelings of distress and isolation. Although increasing awareness of mental health as a critical aspect of overall health, mental health services for older adults are still lacking, especially in rural communities. The stigma of mental illness still keeps many older adults away from seeking help, even when they are in great emotional pain. Increasing mental health services through community programs, digital health, and specialized geriatric mental health care is critical in ensuring that older adults do not have to suffer in silence.

Physical health is also a significant issue as individuals grow older, with the most notable being frailty and mobility impairments. Frailty, a clinical syndrome that greatly elevates the risk of falls, hospitalization, and loss of independence, is typical in older adults. Nagarkar & Kulkarni (2024) indicate that older adults in rural settings are at greater risk of being frail because of poor nutrition, restricted access to healthcare, and reduced levels of physical activity. In comparison, town dwellers could be exposed to fitness clubs and wellness programs that support the physical fitness of the individual. To fight frailty, preventive health programs with emphasis on appropriate nutrition, regular exercise, and access to medical care are critical. Simple interventions like advocacy of walking groups and fitness programs in the community can make a big difference in the physical welfare of elderly persons and preventing frailty.

One of the most startling statistics about aging in India is the incidence of elder abuse and neglect. While Indian society traditionally places a tremendous amount of respect and deference to older persons, financial and social pressures are leading increasingly more instances of elder abuse, including financial exploitation, emotional abuse, and even physical mistreatment. Thennavan *et al.* (2022) identified that financial abuse is the most common kind of abuse, and the majority of elderly people are compelled to relinquish their savings, assets, or pensions. The majority of victims do not report abuse due to fear of

revenge from their family members, social stigma, or ignorance of their rights. While laws to protect the elderly exist, they are weakly enforced, and most elderly individuals do not have the money and legal recourse to pursue remedies.

To combat elder abuse, India needs greater legal protection, publicity drives, and accessible support systems. There also needs to be a change in cultural attitudes towards aging so that the elderly are treated with respect and care. The elderly should not be viewed as burdens but as productive citizens with life experience and active aspirations. There is also an urgent call for more supportive policies towards the elderly, especially in caregiving, economic security, and service access.

The findings from LASI provide a thorough understanding of the challenges older people in India face. Support within the family continues to be a strong pillar of elderly care, but it is no longer adequate to meet the varied needs of the elderly population. Accordingly, policymakers need to consider several interventions to enhance the quality of life of older people. These interventions must be the expansion of dementia screening programs, enhanced access to mental health care, increased healthcare services for rural areas, and enhanced safeguards against elder abuse. There must also be a transformation in the societal perception of aging. Aging must not be perceived as a burden but rather as a life stage that must be accorded dignity, care, and respect. Older adults are not passive recipients of care; they are active members of society, bringing with them important experiences and hopes.

As India transitions to becoming an aging society, the lessons of LASI must be the cornerstone for crafting the future of old-age care. Investments in geriatric care, social protection systems, and community programs will be essential to ensure that the elderly are not left behind. Meeting the needs of an aging population is not merely a policy imperative; it is a moral imperative. Such a society is one that affirms the inherent dignity of all life stages. Providing that elderly persons are able to age securely, in good health, and with a sense of place is at once a measure of a society's progress and a reflection of the values that characterize a humane and equitable society.

As India persists to battle with the issues of an aging population, it must be observed that mental illness issues such as depression, anxiety, and dementia will become more prevalent. Barua *et al.* (2010) identified that approximately 21% of the elderly exhibited clinically significant depressive symptoms, with females and patients suffering from chronic disease being particularly vulnerable. Depression is often downplayed or dismissed as a normal part of aging, leading to delayed diagnosis and poor treatment. The avoidance of probing emotional pain or distress in older adults has serious consequences, perpetuating mental health problems that go untreated for years.

Apart from that, widowhood and the impact it has on older women's mental health are matters of concern of major importance. Evidences presented by Dey *et al.* (2012) provide that older widows experience more distress than widowers, largely due to economic insecurity, diminished social standing, and lack of support from family members. Where joint families have fallen out of favor, older woman, including widow, is alone and vulnerable only. This isolation worsens their mental health, typically leading to unrecognized and untreated depression.

Environmental aspects also contribute a great deal to the mental wellbeing of the elderly. Research conducted by Rajan and Kumar (2016) indicates that elderly people who live with extended families tend to have better mental wellbeing because they are supported socially. Those living alone, however, experience emotional neglect and loneliness that could develop into depression and anxiety. Intergenerational conflict in shared families can also lead to emotional neglect, where the older generation is made to feel like spectators in their own homes with their needs and voices ignored for the sake of younger family members.

Anxiety disorders, though common among the elderly, have taken less prominence than depression. Piliaia *et al.* (2019) had established that close to 18% of seniors were diagnosed with anxiety, but anxiety is dismissed as being "worrying" or taken for a normal aspect of aging. Unawareness of the fact that anxiety is a serious mental illness is what makes it underdiagnosed and untreated. The anxiety in the elderly is usually because of chronic

pain, economic instability, and fear of being burdened by family members.

Dementia, depression, and anxiety are all interrelated conditions of aging that need more focus. Prince *et al.* (2012) forecast that dementia in India will increase at an alarming rate, outpacing trends in high-income nations. Early diagnosis and treatment are imperative to controlling dementia and other cognitive disorders, but many older people do not receive the care they require because they lack awareness and access to health services. Sengupta and Benjamin (2015) stress the importance of comorbid chronic conditions like diabetes and hypertension in hastening cognitive decline and the need for an integrated care approach to geriatric care.

The stigma that goes with mental illness, especially among older persons, continues to be a major impediment to treatment. Patel *et al.* (2018) observed that cultural beliefs and societal attitudes tend to deter older adults from admitting symptoms of mental illness or seeking treatment. The age gap in awareness of mental illness aggravates this problem, as many older people are unwilling to go for treatment because they fear being stigmatized as "mad." Moreover, families might also minimize mental illness, tending to prioritize physical health, thus further blocking access to the care that is needed.

The low number of geriatric mental health specialists in India aggravates these issues. Girish *et al.* (2020) revealed that India has fewer than one geriatric mental health specialist per million elderly individuals, with services focused in urban areas only. Consequently, rural communities, where the majority of elderly individuals reside, lack access to mental health services. In addition, limited finances and lack of access to transportation inhibit many older persons from receiving even minimal mental health care. Government mental health facilities are overfilled and undercapitalized, and electronic health care such as telepsychiatry is inaccessible to those without a computer or know-how.

In order to tackle these issues, India must invest in creating a strong mental health system that focuses on the specific needs of the elderly. This involves training more mental health professionals in geriatrics, taking services out to rural communities, and incorporating mental health treatment into primary care

facilities. Mental health awareness and stigma reduction are also necessary to make elderly people more willing to come forward for treatment.

Meeting the needs of India's elderly population is a multi-faceted initiative that involves healthcare, social protection, mental health care, and legal rights. The LASI findings present a guide to knowing the challenges experienced by older adults and the interventions necessary to enhance their quality of life. Through investments in these regions and promoting a cultural transformation to respect and care for the elderly, India can guarantee that its elderly citizens live with dignity, security, and a sense of belonging.

Research Questions:

1. How do mental health outcomes in the LASI data compare with those from primary data, and what inconsistencies arise due to differences in data collection methods, cultural influences, or reporting biases?
2. What is the influence of socio-economic and healthcare factors on mental health outcomes among the elderly?

RESEARCH OBJECTIVES:

1. To perform a comparative analysis of mental health status in elderly individuals using LASI data versus primary data.
2. To evaluate the effect of socio-economic and healthcare factors on mental health outcomes.

STUDY DESIGN AND METHODOLOGY

This study adopts a cross-sectional, comparative design that integrates secondary data from the Longitudinal Ageing Study in India (LASI) with primary survey data to assess mental health outcomes among individuals aged 45 years and above. The LASI dataset, being nationally representative, provides measures on depression, anxiety, cognitive function, socio-economic status, healthcare access, and lifestyle behaviors. In parallel, a primary survey will be conducted using a standardized questionnaire adapted from LASI instruments, targeting a stratified sample of older adults residing in both urban and rural settings to ensure comparability.

The key variables of interest include standardized indicators of mental health, income and educational attainment, frequency and quality of mental health services accessed, and measures of social engagement. Descriptive statistical analyses will be employed to estimate prevalence rates and demographic trends within both datasets. Comparative analyses will examine the representativeness of LASI measures against primary survey findings and identify socio-economic determinants of mental well-being. Furthermore, multivariate regression models will be utilized to explore the combined effects of economic, healthcare, and lifestyle factors on mental health outcomes.

All ethical protocols will be rigorously observed. Participants in the primary survey will provide informed consent, and their data will be anonymized and securely stored. Compliance with LASI's data-use agreements will be maintained to safeguard confidentiality and uphold research integrity.

ANALYSIS AND INTERPRETATION

This study draws on data from the Longitudinal Ageing Study in India (LASI) as well as primary survey findings to analyze the mental health status of older adults. The analysis is structured according to the study objectives.

The first objective seeks to perform a comparative assessment of mental health outcomes among elderly individuals using LASI's nationally representative dataset and the grassroots level primary survey. Depression, anxiety, cognitive decline, sleep disturbances, and social isolation were examined across both datasets. The findings reveal broad consistency in overall prevalence trends, while also highlighting notable divergences. Primary survey data captured localized experiences such as community-level barriers to care and context-specific patterns of social isolation that were less evident in LASI's national estimates. This comparative approach underscores the value of integrating large-scale datasets with primary evidence to achieve a more grounded understanding of ageing-related mental health challenges.

The second objective focuses on evaluating the influence of socio-economic and healthcare determinants on mental health outcomes.

Multivariate analyses demonstrate that income status, educational attainment, and access to healthcare services are significant predictors of depression, cognitive impairment, and overall psychological well-being. Lifestyle practices and the quality of healthcare utilization further shaped outcomes, with disparities between rural and urban settings being particularly pronounced. These results highlight the critical role of social and structural factors in determining mental health trajectories among India's ageing population.

Together, the findings illuminate both the strengths and limitations of large-scale surveys and emphasize the necessity of localized, context-sensitive data to inform targeted mental health interventions and policy frameworks.

Objective 1. To perform a comparative analysis of mental health status in elderly individuals using LASI data versus primary data.

Building on this comparative framework, the analysis was carried out by systematically aligning mental health indicators from LASI with those measured in the primary survey. Standardized variables such as depression symptoms, loneliness, insomnia, loss of interest, and the presence of chronic illness were extracted from LASI's nationally representative dataset and mapped against corresponding measures gathered from the field survey. Descriptive statistics were first employed to identify prevalence rates

and demographic distributions within each dataset. Subsequently, cross-tabulations and comparative percentage differences were used to detect consistencies and divergences across age groups, gender, and rural-urban segments. This methodological approach not only ensured comparability between the two datasets but also enabled a nuanced interpretation of how large-scale national estimates converge with, or deviate from, grassroots-level realities.

Comparative Analysis: LASI vs. Primary Data

As presented in Table 1, the comparative analysis systematically aligns key indicators from LASI with those obtained through the primary survey. Variables such as depression symptoms, loneliness, insomnia, loss of interest, and chronic disease were operationalized using standardized measures to ensure comparability across datasets. Descriptive statistics were employed to establish prevalence rates within both sources, followed by cross-tabulations to examine variations across demographic categories including age, gender, and residential setting. This framework enabled the identification of both convergences and divergences between national-level estimates and localized findings, thereby offering a nuanced perspective on elderly mental health. The patterns highlighted in Table 1 not only validate the broader representativeness of LASI but also draw attention to context-specific realities that remain underexplored in large-scale surveys.

Table 1: Elderly Mental Health Indicators – LASI vs. Primary Data Comparison

Indicator	LASI Findings	Primary Data Insights
Prevalence of sadness/depression	29-35% of the elderly reported experiencing symptoms such as persistent sadness, low mood, or hopelessness.	Over 50% of the respondents reported feeling "often sad," indicating a higher prevalence.
Gender difference	Women showed higher rates of depressive symptoms than men in LASI.	Primary data corroborates this; elderly females, particularly widows, exhibited more signs of emotional distress.
Rural-urban difference	Slightly higher depression rates in rural areas due to isolation and lack of mental health infrastructure.	Our sample, largely from rural/semi-urban areas, exhibited more acute depressive symptoms.
Living alone as a risk factor	Elderly living alone or with minimal social interaction had significantly higher loneliness scores.	Respondents living alone or only with a spouse reported feeling emotionally unsupported and isolated.
Widowhood and social withdrawal	Widowed individuals experienced heightened emotional withdrawal and were less likely to engage socially.	Confirmed. Widows and widowers in your data frequently expressed detachment and sadness.
Elderly with poor sleep quality	Approximately 45% of elderly respondents experienced difficulty sleeping, especially those with mental distress.	Sleep-related problems were reported by a significant number of your participants, particularly those with chronic illnesses.
Link to mental health	Sleep disruption was often co-morbid with feelings of anxiety, restlessness, and low mood.	Our data echoes this link many who experienced sadness or depression also reported poor sleep.

table Cont....

Indicator	LASI Findings	Primary Data Insights
Loss of interest in daily activities	~25–30% reported a significant decrease in interest in hobbies, work, or community participation.	Over 50% in your data admitted they no longer enjoy previously loved activities.
Educational background impact	Lower literacy levels were correlated with higher levels of disengagement and depression.	Our data supports this; uneducated elders were more likely to express boredom and emotional fatigue.
Impact of chronic diseases (e.g., diabetes, arthritis) on mental health	Chronic illness increases the likelihood of depression two-fold in the elderly.	We found that individuals with chronic illnesses often felt helpless, anxious, and less hopeful.
Gender differential	Women with chronic illness had worse outcomes in both physical and mental health.	Same pattern observed in our data chronic illness combined with widowhood or isolation worsened emotional well-being.

Source: Author's Compilation

INTERPRETATION

The comparative review indicates that older adults reported a higher prevalence of depression, social isolation, sleep disturbances, and cognitive disengagement in the primary dataset compared to LASI. Key factors associated with elevated emotional distress included residence in rural or semi-rural areas, lower educational attainment, widowhood, and the presence of chronic illnesses. While LASI provides valuable insights into national-level trends across broad demographic categories, the primary data reveal context-specific issues that directly affect quality of life. These localized concerns appear to stem from limited social support systems, inadequate mental health awareness, and restricted access to healthcare services (Jiang *et al.*, 2023; Kumar & Singh, 2022).

The evidence underscores a strong interdependence between physical and mental health in older populations, with women and socially isolated individuals being particularly vulnerable. These findings highlight the urgent need for place-based interventions, structured opportunities for social engagement, and integrated geriatric care approaches that address the complex interplay of physical and psychological health in later life (Patel *et al.*, 2021; Sharma & Gupta, 2023).

Objective 2: To evaluate the effect of socio-economic and healthcare factors on mental health outcomes.

In continuation of the comparative findings outlined in Table 1, the second objective examines the influence of socio-economic and healthcare determinants on mental health outcomes in older adults. As outlined in Objective 2, this analysis was designed to assess how variations

in income, education, and access to healthcare services shape psychological well-being in the elderly population. To achieve this, a multivariate analysis of variance (MANOVA) was conducted in SPSS, with the Mental Health Composite (MHcomposite) serving as the independent variable and selected socio-economic and healthcare indicators entered as dependent variables. This approach allowed for the simultaneous evaluation of multiple predictors, thereby providing a more comprehensive understanding of the structural and systemic factors that contribute to disparities in mental health among ageing individuals.

Table 2: Distribution of Respondents by Mental Health Composite Score (MH composite)

Between-Subjects Factors	
	N
	1.75
	2.00
	2.25
	2.50
	2.75
	3.00
MHcomposite	3.25
	3.50
	3.75
	4.00
	4.25
	4.50
	4.75

Source: Author's Compilation

Table 3: Tests of Between-Subjects Effects for Socio-Economic and Healthcare Variables

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
<i>Corrected Model</i>	5. Educational Attainment	13.781a	12	1.148	1.803	.050
	7. Household Income Level (Annual in INR)	22.776b	12	1.898	1.720	.065
	28. There are sufficient resources and support systems to manage aging-related concerns	31.154c	12	2.596	3.517	.000
	27. I believe services aimed at improving well-being in later years are accessible in my area	43.647d	12	3.637	4.862	.000
	25. I am aware of services or programs designed to support individuals as they age	30.051e	12	2.504	2.937	.001
<i>Intercept</i>	5. Educational Attainment	243.774	1	243.774	382.692	.000
	7. Household Income Level (Annual in INR)	375.140	1	375.140	340.018	.000
	28. There are sufficient resources and support systems to manage aging-related concerns	476.294	1	476.294	645.174	.000
	27. I believe services aimed at improving well-being in later years are accessible in my area	461.911	1	461.911	617.476	.000
	25. I am aware of services or programs designed to support individuals as they age	460.397	1	460.397	539.992	.000
<i>MH composite</i>	5. Educational Attainment	13.781	12	1.148	1.803	.050
	7. Household Income Level (Annual in INR)	22.776	12	1.898	1.720	.065
	28. There are sufficient resources and support systems to manage aging-related concerns	31.154	12	2.596	3.517	.000
	27. I believe services aimed at improving well-being in later years are accessible in my area	43.647	12	3.637	4.862	.000
	25. I am aware of services or programs designed to support individuals as they age	30.051	12	2.504	2.937	.001
<i>Error</i>	5. Educational Attainment	124.215	195	.637	—	—
	7. Household Income Level (Annual in INR)	215.143	195	1.103	—	—
	28. There are sufficient resources and support systems to manage aging-related concerns	143.957	195	.738	—	—
	27. I believe services aimed at improving well-being in later years are accessible in my area	145.872	195	.748	—	—
	25. I am aware of services or programs designed to support individuals as they age	166.257	195	.853	—	—
<i>Total</i>	5. Educational Attainment	1433.000	208	—	—	—
	7. Household Income Level (Annual in INR)	2021.000	208	—	—	—
	28. There are sufficient resources and support systems to manage aging-related concerns	2263.000	208	—	—	—
	27. I believe services aimed at improving well-being in later years are accessible in my area	2452.000	208	—	—	—
	25. I am aware of services or programs designed to support individuals as they age	2472.000	208	—	—	—
<i>Corrected Total</i>	5. Educational Attainment	137.995	207	—	—	—
	7. Household Income Level (Annual in INR)	237.918	207	—	—	—
	28. There are sufficient resources and support systems to manage aging-related concerns	175.111	207	—	—	—
	27. I believe services aimed at improving well-being in later years are accessible in my area	189.519	207	—	—	—
	25. I am aware of services or programs designed to support individuals as they age	196.308	207	—	—	—

table Cont....

a. R Squared = .100 (Adjusted R Squared = .044)

b. R Squared = .096 (Adjusted R Squared = .040)

c. R Squared = .178 (Adjusted R Squared = .127)

d. R Squared = .230 (Adjusted R Squared = .183)

e. R Squared = .153 (Adjusted R Squared = .101)

Source: Author's Compilation

Table 4: Multivariate Tests Assessing the Overall Effect of Mental Health Composite on Combined Dependent Variables

Multivariate Testsa						
	Effect	Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.895	324.984b	5.000	191.000	.000
	Wilks' Lambda	.105	324.984b	5.000	191.000	.000
	Hotelling's Trace	8.507	324.984b	5.000	191.000	.000
	Roy's Largest Root	8.507	324.984b	5.000	191.000	.000
MHcomposite	Pillai's Trace	.589	2.168	60.000	975.000	.000
	Wilks' Lambda	.513	2.293	60.000	898.157	.000
	Hotelling's Trace	.766	2.419	60.000	947.000	.000
	Roy's Largest Root	.472	7.663c	12.000	195.000	.000

a. Design: Intercept + MHcomposite

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Source: Author's Compilation

INTERPRETATION

To assess the impact of socio-economic and health-related factors on mental health among older adults, a Multivariate Analysis of Variance (MANOVA) was conducted with the Mental Health Composite (MHcomposite) as the independent variable. The multivariate tests including Wilks' Lambda (0.513, $p < 0.001$), Pillai's Trace, and Hotelling's Trace confirmed a statistically significant overall effect, indicating that variations in mental health status were meaningfully associated with the combined set of dependent variables.

Subsequent univariate analyses demonstrated that health-related indicators exhibited the strongest associations with mental health outcomes. Specifically, knowledge of ageing programs ($F = 2.937$, $p = 0.001$), access to well-being services ($F = 4.862$, $p < 0.001$), and availability of support systems ($F = 3.517$, $p < 0.001$) were all significantly influenced by mental health status. These effects were further reinforced by statistically significant R^2 values ranging from 0.153 to 0.230, confirming their explanatory contribution to the variance in mental health outcomes.

By contrast, socio-economic determinants such as educational attainment ($F = 1.803$, $p = 0.050$) and household income ($F = 1.720$, $p = 0.065$) demonstrated weaker or only marginal statistical associations, with considerably lower explanatory variance ($R^2 \approx 0.10$).

Taken together, these findings suggest that access to healthcare services, availability of resources, and awareness of ageing-related programs exert a stronger influence on mental health disparities among older adults than conventional socio-economic measures. The results highlight the importance of strengthening service accessibility and program awareness, while also emphasizing the critical role of supportive environments and community-based healthcare systems in promoting psychological well-being in later life.

CONCLUSION

This study provides a comprehensive assessment of mental health among India's elderly by integrating secondary data from the Longitudinal Ageing Study in India (LASI) with primary survey data collected at the community level. In line with the first

objective, the comparative analysis revealed both convergence and divergence between national trends and localized realities. While LASI highlighted broad prevalence patterns of depression, anxiety, cognitive decline, and emotional disengagement, primary data captured more severe distress and context-specific challenges, particularly among women, widows, those with chronic illnesses, and socially isolated individuals. These findings underscore the value of combining large-scale surveys with primary data to validate trends and identify hidden vulnerabilities in ageing populations (Pilania *et al.*, 2019; Kumar *et al.*, 2023).

Addressing the second objective, the study demonstrates the significant influence of socio-economic and healthcare factors on mental health outcomes. Access to healthcare services, awareness of ageing related programs, social support, and resource availability emerged as stronger determinants of mental well-being than conventional socio-economic indicators such as income or education. The results highlight the interdependence of physical and mental health and emphasize the need for integrated, interdisciplinary approaches to geriatric care (Singh *et al.*, 2025; Srivastava *et al.*, 2021).

Collectively, the findings point to an urgent need for targeted, community based interventions, including routine mental health screening, gender sensitive policies, stigma reduction initiatives, and caregiver support mechanisms. Embedding mental health within ageing policy frameworks, particularly in rural and semi-urban contexts, is critical to ensuring that older adults live not only longer but with dignity, resilience, and psychological well-being. This study reinforces the importance of evidence-driven, context-specific strategies to address the growing unmet demand for geriatric mental health services in India (Rajkumar, 2023; Tiwari *et al.*, 2012).

Theoretical and Practical Implications

This study offers several important theoretical contributions to the field of gerontology and mental health. By integrating nationally representative LASI data with localized primary survey data, it highlights the limitations of macro-level datasets in capturing the nuanced realities of elderly populations within specific socio-cultural contexts. The findings extend existing models of social

determinants of health by demonstrating that access to healthcare, awareness of ageing-related resources, and availability of support systems are stronger predictors of mental well-being than traditional socio-economic indicators such as income or education. Additionally, the study advances gerontological theory through a gendered lens, illustrating how widowhood, chronic illness, and social isolation disproportionately affect elderly women. The research further reinforces the biopsychosocial model of ageing, empirically validating the strong interdependence between chronic physical conditions and psychological distress. By situating these insights within the context of a low and middle-income country, the study contributes to global ageing scholarship, moving the discourse beyond high-income settings and offering context-specific theoretical advancements.

In practical terms, the findings have significant implications for healthcare policy and service delivery. Integrating routine mental health screening into primary care systems is critical to address underdiagnosis, particularly in rural and underserved populations. Targeted interventions for high-risk groups such as widows, the chronically ill, and socially isolated elderly should be supported through gender sensitive, community based programs. Training healthcare providers and frontline workers in geriatric mental health can enhance early detection, while initiatives such as senior activity centers, peer counseling, and structured social engagement platforms can mitigate loneliness and promote psychological well-being. Technology-enabled solutions, including telepsychiatry and mobile health applications, offer potential to bridge rural urban service gaps. Furthermore, structured caregiver support including respite services, training, and counseling is essential for sustainable eldercare. Public awareness campaigns that challenge cultural stigmas framing mental distress as a normative aspect of ageing are also critical to encourage help-seeking and foster healthier ageing trajectories.

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