Multidimensional Poverty Among Middle Aged and Older Adults in India: Insights from a Nationally Representative Survey

Aditya Singh, Anshika Singh
Department of Geography
Banaras Hindu University

As individuals age, health issues and dependency often increase, heightening the risk of multidimensional poverty. This study investigates the dynamics of multidimensional poverty among middle aged and older adults in India. We utilized LASI Wave-1 (2017-18) data, covering 59,738 individuals aged 46 and above. The Multidimensional Poverty Index (MPI) was calculated using the Alkire-Foster method and included five dimensions: education, health, living standards, social security, and employment/household consumption, with 14 indicators. 84% of sampled individuals are multidimensionally poor, with an intensity of 53%. The MPI value is 0.44, indicating that 4 out of 10 individuals are living in multidimensional poverty, adjusted for intensity. There is notable state-level variation, with MPI ranging from 65% in Himachal Pradesh to 90.5% in Bihar. Social security and education are the major contributors, accounting for 33.1% and 26.6% of the MPI, respectively. Pension and health insurance show high ratios in both uncensored and censored counts. The findings highlight the urgent need for targeted interventions for middle-aged and older adults. Enhancing social security and health systems, improving access to health insurance and pensions, and addressing chronic disease management, daily living assistance, and mental health support are essential for reducing multidimensional poverty in this demographic.

Introduction

Poverty is a condition characterized by both insufficient income and the inability to access basic resources needed to live with dignity (1). Assessing poverty is essential for evaluating policies aimed at enhancing the well-being of society's most disadvantaged members (2). Traditionally, poverty has been measured in monetary terms, a method commonly used by international agencies to report on and to assess progress in poverty reduction (3,4). The rationale behind the money-metric approach to poverty is that, an individual above the monetary poverty line has the purchasing power to obtain the necessary resources to achieve a sufficient level of well-being and functionality (5). Poverty outcomes cannot be accurately measured by only considering individual's or household's income or consumption capacities (6).

Poverty encompasses more than just a lack of income; it involves various socioeconomic dimensions. Researchers have acknowledged the limitations of monetary measures of poverty assessment, this has led to the formulation of methodologies that assess poverty from multiple dimensions (7).These include access to services and social protection measures, the ability to express opinions and make choices, the power to negotiate, social status, decent work, and opportunities (8). Following Sen's innovative contribution, many researchers have gradually transitioned from a singular monetary perspective to a multidimensional approach. Consequently, a variety of methods have been developed to measure multidimensional poverty (5). Among these, the most widely used measurement is the Alkire-Foster (A-F) method (9). In 2010, the United Nations Development Programme introduced the Multidimensional Poverty Index, which includes measures of health, education, and living standards (3,10).

The demographic transition, increased life expectancy and declining fertility rates, has led to a rise in the aging population in many developing countries, including India (11). Middle-aged and older adults make up 21% of the total population in India (12). Growing older poses a significant additional risk of becoming or staying poor (13). The likelihood of poverty in old age is typically higher in less developed countries where social protection systems are limited, leaving many elderly individuals dependent solely on family support (13). Old age poverty is a major concern because as people age, their income decreases while their expenses, especially for health care, increase and the prevalence of poverty, both in general and specifically among the elderly, remains a significant problem in India. (11).

Several studies have been carried out on the multidimensional poverty among older adults and elderly in different countries (4,14–22).In India several studies have been conducted on MPI at household level, state level, in urban India, and across social groups (23–29). In India few studies have been conducted on the multidimensional poverty among elderly population (11,30). Both of these studies were carried out using National Sample Survey data of 2005-05 and 2017-18.

To best of our knowledge none of the previous study has been carried out on latest data of the Longitudinal Aging Study in India (LASI) wave-1 surveyed during 2017-18. In the present study we estimate the MPI using educations, health, living standard, social security, and employment and wealth for India and its states using the latest LASI data among individuals aged 45 and above. The study also investigates the uncensored, censored headcount ratio, and contribution percentage of dimensions and indicators in MPI.

Data and Methods

Data for this study was sourced from the Wave-1 of the Longitudinal Ageing Study in India (LASI) collected during 2017-18. This nationally representative survey includes over 72,000 older adults aged above 46 from all states and union territories of India. It investigates the health, economic, and social factors and impacts of population ageing in India. Further details about LASI are available in the LASI report (31). For analysis, we have excluded individuals aged less than 45 years as the study was focused

on middle aged and older adults. We have 12,532 dropped missing and inconsistent observations. We have included 59,738 middle aged and older adults for the study. A detailed procedure of sample selection is given in figure 1.

Measurement of Multidimensional Poverty Index

Construction of MPI

We used the Alkire-Foster (A-F) method to create the MPI, which involves a dual cutoff process for identifying poverty (9,29,32). First, deprivation cutoffs were applied to assess whether the respondent experienced deprivation in each dimension. Next, the deprivation scores across all dimensions were weighted and aggregated. Finally, poverty cutoffs were used to determine if the respondent was multidimensionally poor, then the we take the product of headcount ratio (H) and poverty intensity (A) to get the value of MPI (33). The formula to get the H, A and MPI is given below:

Headcount Ratio (H),

$$H = \frac{q}{n}$$

Poverty Intensity (A),

$$A = \frac{\sum_{i=1}^{q} c_i(k)}{q}$$

Multidimensional Poverty Index (MPI),

$$MPI = H \times A = \frac{q}{n} \times \frac{\sum_{i=1}^{q} c_i(k)}{q} = \frac{1}{n}\sum_{i=1}^{q} c_i(k)$$

Where, n = sample size

q = number of those who were multidimensionally poor

c_i = deprivation scores of individual i in all dimensions

k = poverty cutoff that identifies who is poor

When $c_i \geq k$, individual i is defined as multidimensionally poor and $c_i(k) = c_i$; otherwise ci(k) = 0.

Other than this we have also calculated indicator's uncensored headcount ratio, censored headcount ratio, and contribution percentage to overall MPI. The uncensored headcount provides the total number of individuals who are deprived in a given indicator, reflecting the extent of deprivations across the entire population in that indicator. The censored headcount indicates the proportion of individuals who are multidimensionally poor and deprived in a specific indicator, revealing the distribution of deprivations among those who are multidimensionally poor. The contribution of an indicator shows the percentage that each indicator adds to the overall MPI, taking into account the weights assigned to each indicator. The formula to calculate the contribution of each indicator *j* is (25):

$$\text{Contribution}_j = \frac{w_j h_j(k)}{MPI_c} \times 100$$

Where,
MPI_c = India's MPI,

w_j= Weight of the j^{th} indicator
k = Second order cutoff

Dimensions and indicators

Majority of the study assessed MPI using education, health, and living standard. For this study dimensions and indicators for MPI was based on previous studies on middle aged and older adults (4,22,34). For this analysis we have five dimensions namely education, health, living standard, social security, and employment and consumption expenditure. For the indicator we have 14 indicators. The details of dimension, indicators and deprivation cutoffs for indicator is given in **table 1**. The operational definitions of the indicators are given **table 2**. For the weight we have provided equal weight to all the dimensions and further divided that weight in equal for the indicators within the dimension. We have applied two cutoffs, first at the level of indicator and then we have selected 33% as the second cutoff, that is deprivation in 33% of the indicator was considered to be multidimensionally deprived.

Table 1: Dimensions, Indicators, weights, and deprivation cutoffs of the MPI indicators

Dimensions	**Indicators**	**Deprivation cutoffs**	**Weights**
Education	Schooling	The individual did not attain primary level of education	1/5
Health	Chronic disease	The person had at least one chronic illness and did not receive any medication or treatment.	1/15
	Activities of daily living	The person was entirely unable to perform any daily activities or needed some assistance to do so.	1/15
	Depression	The individual scored 4 or more in the CESD questions	1/15
Living standard	Water facility	The household had no improved water facility	1/30
	Toilet facility	The household had no improved toilet facility	1/30
	Kitchen facility	The household had no separate room for kitchen	1/30
	Cooking fuel	The household uses nonclean energy as cooking fuel	1/30
	Household assets	The household had no more than one of the following assets: bicycle, motorcycles, refrigerators, washing machines, televisions and mobile phone	1/30
	Housing structure	The household did not live in permanent structure house	1/30
Social security	Health insurance	The individual was not covered under any health insurance	1/10
	Pension	The individual was not covered under any pension scheme	1/10
Employment and consumption expenditure	Employment	The individual was not employed in any income generating occupation	1/10
	MPCE	The individual belonging to bottom two quintile of household	1/10

Source: Dynamics of multidimensional poverty and its determinants among the middle-aged and older adults in China

Terminology (25)**:**

Headcount ratio: The proportion of multidimensionally poor individuals in the total population or the percentage of people experiencing poverty. It addresses the question of how many people are considered poor.

Poverty Intensity: It represents the average proportion of deprivations faced by multidimensionally poor individuals. This is the average deprivation score among all those who are multidimensionally poor, addressing the question of how severe their poverty is.

Multidimensional Poverty Index (MPI): The Multidimensional Poverty Index (MPI) captures both the incidence and intensity of multidimensional poverty. It is product of two partial indices: the headcount ratio and the intensity of poverty. This index can also be described as the proportion of the population that is multidimensionally poor, adjusted by the degree of deprivation they experience.

Uncensored Headcount ratio: It shows the percentage of individuals who experience deprivation in a specific indicator, regardless of whether they are considered multidimensionally poor.

Censored Headcount ratio: Similar to the uncensored headcount ratio, the censored headcount ratio reflects the proportion of individuals who are both multidimensionally poor and deprived in a specific indicator.

Results

Multidimensional deprivation among middle-aged and older adults

Table 4 shows the deprivation percentage among the sampled individuals by background characteristics. 93% of female and 74% of individuals were multidimensionally deprived. 90% of the elderly were multidimensionally deprived, whereas 90% SC and ST were deprived. 87% of Muslim individuals were multidimensionally deprived. Among rural resident, 88% of them were multidimensionally deprived. Whereas, 94% individuals who were living with their children and others were multidimensionally deprived. Nearly 90% sampled individuals living in household with 6 to 10 or 11 to 15 members were multidimensionally deprived. 91% of the sampled individuals who had 4 or more children were multidimensionally deprived.

Table 4: Multidimensional deprivation among middle-aged and older adults by background characteristics

Variable	% of deprived older adults	95% CI	chi square	p-value
Sex			4213.0	<0.001
Male	73.7	[72.0,75.3]		
Female	93.2	[92.2,94.0]		
Age (in years)			1319.7	<0.001
46- 54	76.8	[75.2,78.3]		
55-65	85.4	[84.5,86.3]		
above 65	90.3	[89.1,91.3]		
Social group			864.2	<0.001
Scheduled Caste	90.0	[89.0,91.0]		
Scheduled Tribe	91.0	[89.5,92.3]		
Other Backward Classes	83.2	[81.6,84.7]		
Others	78.3	[76.8,79.6]		
Religion			116.0	0.009
Hindu	83.5	[82.4,84.6]		
Muslim	88.6	[85.1,91.4]		
Others	83.3	[80.6,85.7]		
Residence			1333.9	<0.001
Rural	87.7	[86.9,88.4]		
Urban	75.7	[73.7,77.6]		
Living arrangement			52.6	0.001
Not living with children	86.0	[84.8,87.1]		

Living with children	83.5	[82.3,84.6]		
Household member			492.3	<0.001
1 to 5 members	81.6	[80.5,82.6]		
6 to 10 members	88.2	[87.1,89.2]		
11 to 15 members	90.1	[87.6,92.1]		
above 15 members	80.8	[71.3,87.6]		
Number of children			2163.7	<0.001
No child	86.8	[83.8,89.3]		
1 child	77.7	[75.2,79.9]		
2 children	73.0	[70.6,75.2]		
3 children	83.6	[82.6,84.6]		
4 or more children	90.7	[90.0,91.3]		
India	84.1	[83.1,85.0]		

Note: CI: Confidence Interval

Deprivation rates by the dimension and indicators

Deprivation rates by dimensions and indicators also known as uncensored headcount ratio, is given in **table 5**. We have considered an individual deprived in any dimension if he/she was deprived in at least one of its indicators. The deprivation rates among all sampled individuals across dimensions varies from 62.3% in education to 98.5% in social security. Apart from social security, deprivation was high in employment and wealth (73.5%), and living standard (71.4%). The deprivation rate was relatively lower in education (62.3%), and health (64.1%). The indicators that explain the deprivation also vary across the dimensions. Within the health dimension, the deprivation was highest in the ADL indicator (38.9%) that is individuals who needed any aid or support in performing activities of daily living, and then in depression in which 28.2% of individuals were deprived. Within the living standard dimension, the highest deprivation was observed for cooking fuel (48.0%) that is individuals not using clean fuel for the purpose of cooking, followed by kitchen (35.7%), and toilet facility (27.3). Within the living standard dimension, the lowest deprivation was seen in household assets (5.1%). Further, within social security dimension, both health insurance (94.6%) and pension (79.5%) had relatively high deprivation. Close to half of the individuals were deprived in employment indicator.

Table 5: Deprivation rates by dimensions and indicators

Dimension and Indicators	n	weighted %
Education	**35,254**	**62.3**
Health	**37,603**	**64.1**
Chronic disease	11,725	19.6
Activities of daily lives	23,527	38.9
Depression	15,360	28.2
Living standard	**42,232**	**71.4**
Water facility	3,919	6.2
Toilet facility	11,517	27.3
Kitchen facility	19,499	35.7
Cooking fuel	27,249	48.0
Household asset	3,784	5.1
Housing structure	10,712	17.1
Social security	**58,611**	**98.5**
Health insurance	46,153	79.5

Pension	55,414	94.6
Employment and consumption	**43,622**	**73.5**
Employment	32,451	53.4
MPCE	23,741	42.5

Multidimensional poverty index

For India, the headcount ratio (H) was 0.84 which indicates that 84% of middle-aged and older adults were identified as multidimensionally poor. And the poverty intensity (A) was 0.53 which signifies that the average deprivation among multidimensionally poor was 53%. The multidimensional poverty is the product of headcount ratio and poverty intensity. So, the multidimensional poverty for the middle-aged and older adults in India was 0.44, which indicate that the 44% of the middle-aged and older adults were living in multidimensional poverty adjusted by the poverty intensity. However, the MPI varies across the states, the MPI ranges from 0.32 in Himachal Pradesh to 0.53 in Bihar. Apart from Bihar Uttar Pradesh (0.52), and Madhya Pradesh (0.50) had a high MPI. Apart from Himanchal Pradesh, Goa and Kerala (0.34) both had low MPI. There are five states whose MPI ranges between 0.31-0.35, 10 states in 0.36-0.40, 12 states in 0.41-0.45, 7 states in 0.46-0.50, and 2 states with above 0.50 MPI value.

Contribution of dimensions and indicators in the multidimensional poverty index

The contribution percentage indicates the extent to which each dimension and indicator contribute to the overall MPI, helping to identify the most significant areas driving multidimensional poverty within the sample. The contribution of dimensions and indicators in given in table. The dimension which had contributed maximum in MPI is social security (33.1%), and followed by education (26.6%). Among the indicators other than primary education, indicator such as pension (18.0%), health insurance (15.1%), and employment (11.3%) contribute most in the MPI. While, indicator of water facility (0.4%), household asset (0.4%), house structure (1.2%), and toilet facility (1.4%) contribute least to the MPI.

Table 7: Contribution of indicators and dimensions

Dimension	Indicator	CH	Weight	Contribution %
Education	Schooling	58.6	1/5	26.6
Health	Chronic disease	18.0	1/15	2.7
	Activities of daily living	31.5	1/15	4.8
	Depression	24.1	1/15	3.7
	Health total			11.2
Living standard	Water facility	5.3	1/30	0.4
	Toilet facility	18.2	1/30	1.4
	Kitchen	29.5	1/30	2.2
	Fuel	41.4	1/30	3.1
	House structure	16.6	1/30	1.2
	Household asset	4.8	1/30	0.4
	Living standard total			8.7
Social security	Health insurance	66.6	1/10	15.1
	Pension	79.2	1/10	18.0
	Social security total			33.1
	Employment	49.6	1/10	11.3
	MPCE	37.6	1/10	8.6

Employment & consumption expenditure	Employment & consumption expenditure total	19.8

Note: CH- Censored headcount ratio

Conclusion

A high proportion of individual in the age group 46 and above are multidimensionally poor and are living in multidimensional poverty. The major contributing to this high MPI were social security, education, and employment. Improving education and employment opportunities for middle-aged and older adults is challenging. To further reduce multidimensional poverty in this group, the government should enhance social security and health monitoring systems. Strengthening existing programs, policies, and their implementation is necessary. Policies should focus on providing health insurance and pensions to vulnerable populations. Additionally, interventions should include health check-ups and addressing their needs related to chronic diseases, daily living activities, and mental health.

References

1. Decent work and social protection [Internet]. United Nations. [cited 2024 Jul 29]. Available from: https://www.un.org/en/observances/day-for-eradicating-poverty
2. Dimri A, Maniquet F. Income poverty measurement in India: defining group-specific poverty lines or taking preferences into account? J Econ Inequal. 2020;18(2):137–56.
3. International agencies: measuring multi-dimensional poverty. Poverty and Social Exclusion.
4. Wang Q, Shu L, Lu X. Dynamics of multidimensional poverty and its determinants among the middle-aged and older adults in China. Humanit Soc Sci Commun. 2023;10(1):1–9.
5. Thorbecke E. Multidimensional Poverty: Conceptual and Measurement Issues. In: Kakwani N, editor. The Many Dimensions of Poverty. United Nation Development Program; 2007.
6. Wagle U. Multidimensional Approach to Poverty. In: Multidimensional Poverty Measurement: Concepts and Application. Springer; 2008. p. 55–65.
7. Alkire S, Santos ME. A Multidimensional Approach: Poverty Measurement & Beyond. Soc Indic Res. 2013;112(2):239–57.
8. Poverty [Internet]. United Nations Global Comapct. [cited 2024 Jul 29]. Available from: https://unglobalcompact.org/what-is-gc/our-work/social/poverty
9. Alkire S, Foster J. Counting and multidimensional poverty measurement. J Public Econ [Internet]. 2011;95(7–8):476–87. Available from: http://dx.doi.org/10.1016/j.jpubeco.2010.11.006
10. Ending Poverty [Internet]. United Nations. [cited 2024 Jul 29]. Available from: https://www.un.org/en/global-issues/ending-poverty
11. Srivastava A, Mohanty SK. Poverty Among Elderly in India. Soc Indic Res. 2012;109(3):493–514.
12. Office of the Registrar General & Census Commissioner. Census 2011 [Internet]. Ministry of Home Affairs, Government of India. [cited 2024 Jul 30]. Available from: https://censusindia.gov.in/census.website/
13. United Nations. Income Poverty in Old Age:An Emerging Development Priority. 2016;1–5. Available from: https://www.un.org/esa/socdev/ageing/documents/PovertyIssuePaperAgeing.pdf
14. Mohaqeqi Kamal SH, Basakha M, Alkire S. Multidimensional poverty index: a multilevel

analysis of deprivation among Iranian older adults. Ageing Soc [Internet]. 2022/03/25. 2024;44(2):337–56. Available from: https://www.cambridge.org/core/product/BA8249CFA2F921A2B2E539E4A38058E0

15. Li W, Ke J, Sun F. Long-term care insurance and multidimensional poverty of middle-aged and elderly: Evidence from China. Front Public Heal. 2023;11.
16. Dhongde S. Assessing Multidimensional Deprivation Among the Elderly in the USA BT - Measuring Multidimensional Poverty and Deprivation: Incidence and Determinants in Developed Countries. In: White R, editor. Cham: Springer International Publishing; 2017. p. 255–70. Available from: https://doi.org/10.1007/978-3-319-58368-6_10
17. D'Adda F, Cremaschi M, Messina E, Terraneo M, Bandini S, Gasparini F. A Three Level Prediction of Multidimensional Poverty in Elderly. CEUR Workshop Proc. 2023;3486:544–9.
18. Callander EJ, Schofield DJ. Pathways into chronic multidimensional poverty amongst older people: A longitudinal study. BMC Geriatr [Internet]. 2016;16(1):1–8. Available from: http://dx.doi.org/10.1186/s12877-016-0236-z
19. Hwang, H., & Nam J. Multidimensional poverty among different age cohorts in South Korea. Int J Soc Welf. 2022;31(4):433–48.
20. S. -M. K. Income Poverty and Multidimensional Poverty of Elderly Households. Korean Home Econ Assoc. 2018;175–93.
21. Trani JF, Moodley J, Maw MTT, Babulal GM. Association of Multidimensional Poverty with Dementia in Adults Aged 50 Years or Older in South Africa. JAMA Netw Open. 2022;5(3):E224160.
22. Hu Y, Han H, Liu P. Reducing Multidimensional Poverty of Elderly: The Role of the New Rural Pension Scheme in China. Discret Dyn Nat Soc. 2022;2022.
23. Tile DS V. Multidimensional Poverty in India. Int J Multidiscip Educ Res. 2022;11(7(3)):17–9.
24. Alkire S, Seth S. Multidimensional Poverty Reduction in India between 1999 and 2006: Where and How? World Dev [Internet]. 2015;72:93–108. Available from: http://dx.doi.org/10.1016/j.worlddev.2015.02.009
25. NITI Aayog. National Multidimensional Poverty Index. Vol. 4, Govt. of India. 2015.
26. Kaibarta S, Mandal S, Mandal P, Bhattacharya S, Paul S. Multidimensional poverty in slums: an empirical study from urban India. GeoJournal [Internet]. 2022;87(s4):527–49. Available from: https://doi.org/10.1007/s10708-021-10571-7
27. Dehury B, Mohanty SK. Regional estimates of multidimensional poverty in India. Economics. 2015;9.
28. Tripathi S, Yenneti K. Measurement of Multidimensional Poverty in India: A State-level Analysis. Indian J Hum Dev. 2020;14(2):257–74.
29. Alkaire S, Seth S. Measuring Multidimensional Poverty in India: A new Proposal. OPHI Work Pap 15 Oxford Poverty Hum Dev Initiat [Internet]. 2008; Available from: www.topics.developmentgateway.org/poverty
30. Panda BK, Mohanty SK. Multidimensional Poverty Among the Elderly in India. In: Handbook of Aging, Health and Public Policy: Perspectives from Asia [Internet]. Singapore: Springer Nature Singapore; 2022. p. 1–16. Available from: https://doi.org/10.1007/978-981-16-1914-4_107-1
31. Longitudinal Ageing Study in India (LASI) [Internet]. International Institute for Population Sciences (IIPS). 2020. Available from: https://www.iipsindia.ac.in/
32. Alkire S, Foster J. Understandings and misunderstandings of multidimensional poverty measurement. J Econ Inequal. 2011;9(2):289–314.

33. Alkire, Sabina; Seth S. Multidimensional Poverty Reduction in India between 1999 and 2006: Where and How? World Dev. 2015;72:93–108.

34. Amarante V, Colacce M. Multidimensional Poverty Among Older People in Five Latin American Countries. Soc Indic Res [Internet]. 2022;159(3):945–65. Available from: https://doi.org/10.1007/s11205-021-02782-9

35. Chattopadhyay A, Khan J, Bloom DE, Sinha D, Nayak I, Gupta S, et al. Insights into Labor Force Participation among Older Adults: Evidence from the Longitudinal Ageing Study in India. J Popul Ageing [Internet]. 2022;15(1):39–59. Available from: https://doi.org/10.1007/s12062-022-09357-7

36. Dakua M, Karmakar R, Barman P. Exposure to indoor air pollution and the cognitive functioning of elderly rural women: a cross-sectional study using LASI data, India. BMC Public Health [Internet]. 2022;22(1):1–11. Available from: https://doi.org/10.1186/s12889-022-14749-7

37. Islam S, Upadhyay AK, Mohanty SK, Pedgaonkar SP, Maurer J, O'Donnell O. Use of unclean cooking fuels and visual impairment of older adults in India: A nationally representative population-based study. Environ Int [Internet]. 2022;165(May):107302. Available from: https://doi.org/10.1016/j.envint.2022.107302

38. NITI Aayog. National Multidimensional Poverty Index: A Progress Review 2023 [Internet]. Government of India. New Delhi; 2023. Available from: https://niti.gov.in/sites/default/files/2023-08/India-National-Multidimentional-Poverty-Index-2023

39. Kumar R. Employment break in bihar as compared to india. 2024;LXIV(August 2022):88–98.

40. Raj D, Swain P, Pedgaonkar S. A study on quality of life satisfaction and physical health of elderly people in Varanasi: An urban area of Uttar Pradesh, India. Int J Med Sci Public Heal. 2014;3(5):616.

41. Ministry of Social Justice & Empowerment. Integrated Programme for Senior Citizens [Internet]. Government of India. [cited 2024 Aug 5]. Available from: https://socialjustice.gov.in/

42. Minister of Social Justice & Empowerment. Press Information Bureau Government of India Ministry of Social Justice & Empowerment [Internet]. Government of India. 2016. p. 2016. Available from: 05-08-2024

43. Ministry of Social Justice & Empowernment. Livelihood and Skilling Initiatives for Senior Citizens [Internet]. Government of India. [cited 2024 Aug 5]. Available from: https://grants-msje.gov.in/

44. Ministry of Rural Development. National Social Assistance Programme [Internet]. Government of India. [cited 2024 Aug 5]. Available from: https://nsap.nic.in/

45. Ministry of Health & Family Welfare. National Programme for the Health Care of Elderly [Internet]. Government of India. 2010 [cited 2024 Aug 5]. Available from: https://nhm.gov.in/

46. Garroway C. How much do small old age pension and widows' pension help the poor in India? United Nations Econ Soc Comm Asia Pacific. 2013;(September).

47. Veda C V, Gadkar RD. A Critical Analysis of Policies and Programmes for the Welfare of Older Persons. Int J Manag Res Soc Sci. 2016;3(2):51–7.

48. Subramanyam AA, Singh S, Raut NB, John T. Disability Assessment in Geriatric Psychiatry and Social Welfare Measures in Geropsychiatry in India. Indian J Psychol Med. 2021;43(5_suppl):S78–87.