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# Review Article

# A Scoping Review of Income Support Programs Offered to Older Adults Living in South Asian Countries between 2000 and 2021

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Income support programs (ISPs) are important social policy measures to reduce the risk of poverty among older adults. Over the years, developing countries including South Asian countries have introduced various ISPs to support the older population. This scoping review will provide information on ISPs for older adults in South Asia and will map the evidence available on the impact of these programs. This scoping review uses the Joanna Briggs Institute's (JBI) methodology. Older adults living in South Asia were included, and ISPs were considered as the "concept." Eight electronic databases and organizational/governmental websites were searched for English language publications from January 2000 to May 2021. Four authors independently screened and extracted the data and analyzed it by descriptive statistics. A total of 115 studies provided information on ISPs for older adults and 25 on the impact of these programs. The identified studies covered all types of ISPs; however, government-sponsored or pillar 0 (ISP classification) programs were the most common. They also covered a vast spectrum of all types of study designs. The most common schemes are social pensions that work towards sustainable development goals (Goal 1.3) of social protection for all. Future research should focus on studying the impact of ISPs and expanding the ISPs for older adults in low-coverage countries.

#### 1. Introduction

Poverty is a central political concern in South Asian countries. Despite major improvements during the last decades, a large number of South Asians remain poor. In India, Bangladesh, and Nepal, 13–15% of the population still live below the extreme poverty threshold defined as consuming less than the national equivalent of 1.90\$ per day [1]. The pervasiveness of poverty in South Asian countries becomes even more apparent with the application of the poverty threshold for low- and middle-income countries that reflects economic development and income changes. According to this measure, around half of the populations of Bangladesh, India, and Nepal, 35% of the population of Pakistan, and 10% of all Bhutanese face absolute poverty [2].

Living in poverty has several implications for individuals across the life course. They have no or limited access to healthcare, education, or quality nutrition and suffer from poorer health outcomes, social discrimination, or unequal opportunities. The resulting population-level socioeconomic and health inequalities curb the sustainable development of South Asian societies [3]. A central aim of the sustainable development goal (SDG) agenda is the eradication of poverty by targeting vulnerable groups. Among these, the particularly vulnerable groups are older adults. With increasing age and deteriorating health, their abilities to work and to cover their own gradually decline. In the absence of savings or assets, older adults rely heavily on the support of others. In South Asian welfare systems, this support is predominantly provided by the family while

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statutory provisions play a smaller or negligible role [4]. Among older age groups, women are particularly vulnerable in these settings. Due to substantially lower labour force participation [5], lower education attainment [6], and longer lives spent in poor health [7], women rely heavily on their husbands or other male relatives. On average, women in all South Asian countries are expected to live longer and may require longer support than men once they have reached the age of 65, and these differences are projected to increase further in the future [8]. The risk for the older population suffering from poverty may also affect families that need to provide for dependent older family members and, simultaneously, help their own children in their development [9].

The ageing of South Asia's population will intensify the need for older adults' public support programs. Life expectancy at birth has risen from 42.1 to 69.6 years between 1960 and 2019 [10]. While younger age groups benefited from mortality reductions, older adults gained additional years of life. In the period from 2015 to 2020, a 65-year-old South Asian can expect to live an average of around 15 more years [8]. This number is projected to increase further, and by 2050, a 65-year-old person could expect to live 19 years longer in Bangladesh, 16.4 years in India, or 20.1 years in Sri Lanka. With these rising life expectancies, the share of older adults in the population will augment considerably. In 2050, more than 13% of all South Asians will be older than 65 years compared to 6% in 2020 [8]. The gains in life expectancy may be accompanied by an increase in noncommunicable diseases (NCDs), and this may exacerbate the need for support. Already today, NCDs substantially contribute to the years lived with disability among the older population [11, 12], and in South Asia, it accounts for 81% of the years lived with disabilities among the population aged 65-89 years [13].

South Asian governments have established income support programs (ISPs) to face the aforementioned challenges and to help older adults at risk of poverty. The Indian government established programs such as the National Social Assistance Program or the Indira Gandhi National Old Age Pension [14, 15]. Other South Asian countries introduced programs such as the Nepalese Old Age Allowances for all citizens above age 60+ [16] or the Sri Lankan Elderly Assistance Program for citizens above age 70 lacking any other income [17]. Despite the implementation of these programs, systematic evidence related to their coverage, to their success in reaching their aims, and to potential improvements remains fragmented.

This scoping review seeks to map the existing evidence related to older adults' ISPs in South Asia. This refers to the documentation of the type of available evidence, gender differences in coverage, and entitlement of programs as well as potential research gaps in the existing studies. To date, no scoping review has been conducted in the area of old-age support programs in South Asia. Our review will establish a knowledge base that may help primary research to determine the feasibility of a study and/or the scope for systematic reviews in the areas where evidence is available.

## 2. Objectives

- (a) To identify and provide information on different ISPs for older adults in South Asia
- (b) To map the evidence available on the impact of ISPs on the lives of the older adults of South Asia
- (c) To identify the gaps and provide recommendations for research related to older adults' ISPs in South Asia

### 3. Methods

3.1. Review Design and Reporting. This scoping review is based on the Joanna Briggs Institute (JBI) methodology by Peters et al. [18], devised using Arksey and O'Malley [19] and Levac, Colquhoun, and O'Brien's [20] framework. The authors organized this scoping review as per the PRISMA extension for scoping reviews (PRISMA-ScR) checklist [21]. The protocol for this review underwent a rigorous peer review process and has been published in an open-access journal [22].

3.2. Eligibility Criteria. Eligibility criteria were categorized as per the population-concept-context (PCC) framework and are described as follows.

3.2.1. Population. We considered studies if they included older adults (>60 years), living in South Asia, irrespective of whether they were citizens or refugees. These older adults should have been beneficiaries of the defined ISP that qualify under at least one of the pillars mentioned in Section 3.2.2. The schemes not eligible under Section 3.2.2 were excluded. In cases where schemes covered a larger population but included older adults (e.g., schemes for widows), we still included them.

3.2.2. Concept. The main concept for this scoping review is the ISPs or the financial support programs for older adults. In this scoping review, the World Bank's [23] multipillar program was used for defining and classifying the ISP. These pillars are (1) the zero pillar or noncontributory pillar, which is the social pension that provides a minimal level of prevention; (2) the first pillar or the contributory system that is related to earning and replaces a certain part of income; (3) second pillar is mandatory contributory, meaning the personal savings account; (4) the third pillar is the voluntary contribution, the form can be individual or employer-sponsored, and is flexible and discretionary in nature; and (5) the fourth pillar is intergenerational or intrafamily support to older adults, in the form of financial or nonfinancial support. The evidence providing information on the impact of these programs with regard to income security, socioeconomic status, well-being, and health status of older adults is charted.

3.2.3. Context. This scoping review was restricted to South Asia i.e., India, Pakistan, Bhutan, Nepal, Bangladesh, Sri Lanka, Afghanistan, and Maldives. The studies conducted among South Asians living in other countries were not considered.

- 3.2.4. Types of Resources. Any resource or study type (e.g., primary studies, systematic reviews, reviews, impact evaluations, policy briefs, thesis, and organizational reports) having information on the ISP was included. However, opinion articles, editorials, and letters were excluded.
- 3.3. Searching for Studies. To identify potential records, the following information resources were searched:
  - (a) Electronic databases: MEDLINE (via PubMed), Web of Science, Embase, Scopus, Cochrane Library, ProQuest, and EconLit.
  - (b) Other registers or repositories: 3ie International Initiative for Impact Evaluation and IDEAS repository.
  - (c) Organization websites: Centre for Rural Development, UNFPA India, [24] Commission for Asia and the Pacific, Social Livelihood Research Consortium, Socialprotection.org, Asian Development Bank, Tata Institute of Social Sciences, Institute For Social and Economic Change, Centre for Budget and Governance Accountability, The World Bank, National Institute of Public Finance and Policy, HelpAge India, Dvara Research, Indira Gandhi Institute of Development Research, International Council on Social Welfare, and Organization for Economic Cooperation and Development.
  - (d) Government websites: Ministry of Rural Development, Ministry of Finance, and Government of India.
  - (e) References of included studies.

The initial search was carried out on PubMed, which was customized for other databases. The search was restricted to the English language and records published between January 2000 and May 2021. The search strategy for PubMed is given in the Supplementary file (available here).

- 3.4. Selection of Studies. Citations were exported to the Rayyan web application [25] and were deduplicated. Titles and abstracts of unique citations were read independently by two authors to identify potential records for full-text screening. Full texts of articles were retrieved and screened for inclusion based on predefined eligibility criteria. Full-text screening was undertaken independently by authors in teams. Any discrepancies over inclusion or exclusion were discussed until a consensus was reached. The reasons for each excluded full text were put on record. The entire screening process is depicted using the PRISMA 2020 flow diagram [26].
- 3.5. Data Management and Charting. A pretested data charting file was used to code the data from each included report or publication. Data charting was carried out by a team of two authors independently. Any discrepancy over charted data was discussed until a consensus or third author's opinion was sought. The data charting file (Microsoft (MS) Excel spreadsheet) consisted of the following items:

bibliographic details (author, year of publication, publisher details, and type of publication); study details (objective of the study and methodology including study designs and data collection methods); geographical location (country of origin, state, and district); population details (number, age, gender, socioeconomic status, disability status, and living arrangements); details of the ISP (name of the program, ISP classification, eligibility criteria, population covered, and benefits offered); outcome details (impact of the ISP); and information on gaps in evidence.

3.6. Data Analysis. Data analysis was conducted by two reviewers using a cross-tabulation function and figures in MS Excel. The descriptive summaries of available information about ISP for older adults in South Asia were extracted from included studies for the first objective of the review. Mapping of the details of the included studies, in a matrix of study designs against type of resource, country, type of pillar, implementing body, and the studies that assessed the impact of ISP, was carried out to fulfill the second objective. The recommendations were summarized and enlisted in the review based on the discussion among the authors about the findings and gaps in the literature. Quality assessment of the included studies was not performed.

#### 4. Results

Search in electronic databases and repositories yielded a total of 2024 citations, out of which 354 were duplicates. In addition, a total of 166 records were identified from the additional resources search, i.e., organizational websites and citation checks. Around 288 records (146 from database search and 142 from additional resources search) were screened for full texts. After full-text screening, 116 studies were included in the review. Since one study is an ongoing clinical trial, it is not included in the analysis. Therefore, the total number of studies included for analysis was 115. More information on the study selection process via a schematic diagram is given in Figure 1.

4.1. General Characteristics of the Studies. As shown in Table 1, most studies were narrative/other types of reviews (n = 60) [14, 15, 27–62]; OECD, n.d. [63–79]; and UNES-CAP, n.d. [80-82]; followed by secondary data analysis studies (n=32) [69, 83–113] and other primary studies (n = 23) [16, 114–135]. Studies were mapped according to the study designs. Most of the secondary data analysis studies (n=29) and reviews (n=43) were from India and few reviews/secondary data analyses (n = 6) [33, 36, 66, 82, 99, 136] and primary studies (n=2) [119, 131] were multicountry studies (Figure 2). There were multiple pillars of ISP, and the type of government responsible for the implementation of the scheme, for each scheme, in the included studies. The pillar 0 or social pensions was the commonest type of pillar (n = 213), and the national/central government was the body responsible for implementation. The "other" in the "type of government" corresponds to nationalized banks or nongovernment bodies/groups (Table 2).

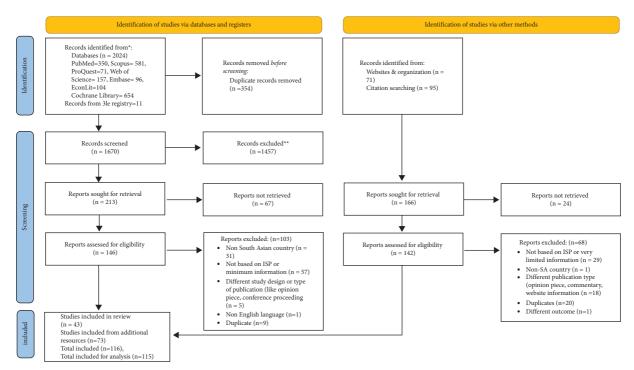


FIGURE 1: PRISMA flow diagram. \*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers). \*\*If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools. From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit https://www.prisma-statement.org/.

TABLE 1: Summary of the included studies according to study designs.

	n (%)						
	Observational (quantitative) $(n = 8)$	Secondary data analysis $(n = 32)$	Mixed methods $(n = 11)$	Qualitative $(n=4)$	Reviews or other $(n = 60)$	Total	
(1) Types of resources							
Journal article	6 (75.0)	13 (40.6)	2 (18.2)	1 (25.0)	19 (31.7)	41 (35.7)	
Organization report	2 (25.0)	13 (40.6)	4 (36.4)	2 (50.0)	18 (30.0)	39 (33.9)	
Working paper	0.0	4 (12.5)	1 (9.1)	0.0	10 (16.7)	15 (13.0)	
Thesis/dissertation	0.0	2 (6.3)	3 (27.3)	1 (25.0)	0.0	6 (5.2)	
Book/book chapter	0.0	0.0	1 (9.1)	0.0	7 (11.7)	8 (7.0)	
Policy/program brief	0.0	0.0	0.0	0.0	2 (3.3)	2 (1.7)	
Other $^{\varphi}$	0.0	0.0	0.0	0.0	4 (6.7)	4 (3.5)	
Total	8 (100.0)	32 (100.0)	11 (100.0)	4 (100.0)	60 (100.0)	115 (100.0)	

Secondary data analysis $^{\gamma}$ : included studies where secondary data (from reports and surveys) were used for analysis. Other  $^{\varphi}$  = program guidelines, government gazette, a proposal for the national program, and a one-pager brief from the organization.

Most studies that assessed the impact of ISP were secondary data analysis (n=12), and there were few primary studies as cross-sectional (n=3), qualitative (n=4), and mixed methods studies (n=6). Figure 3 depicts that publications were highest in the time period between the year 2009 and 2017, with a peak in the year 2013. Few of the organizations that have demonstrated work and published reports in the area of ISP in South Asia are HelpAge International, Centre for Rural Management, India, Asian Development Bank (ADB), Indian Institute of Management (IIM), India, Institute for Social and Economic Change, India, Organization for Economic Co-operation and

Development (OECD), UNESCAP, UNFPA, and the World Bank. The National Bureau of Economic Research is funding the ongoing experimental research in India.

4.2. Income Support Programs in South Asia. In this review, the different ISPs that have been introduced in South Asian countries were identified. More information on the eligibility criteria and benefits (financial benefits adjusted as per year 2021 value of USD) offered by the schemes is given in the Supplementary file. ISPs or old-age pension schemes from Afghanistan and Maldives were not identified.

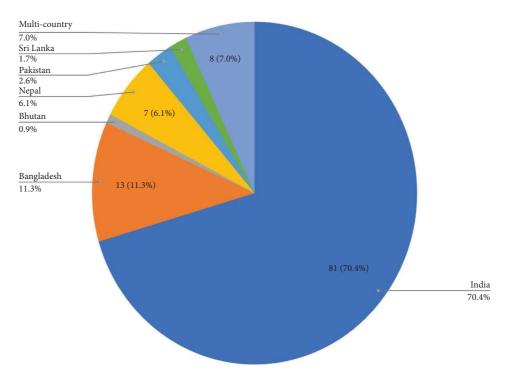


FIGURE 2: Country-wise distribution of studies. Number of studies mapped (n): Bangladesh = 13, Bhutan = 1, India = 81, Nepal = 7, Pakistan = 3, Sri Lanka = 2, and multicountry = 8.

TABLE 2: Distribution of type of ISPs identified in the research literature.

	n (%)						
	Observational (quantitative)	Secondary data analysis <sup>y</sup>	Mixed methods	Qualitative	Reviews or other	Total**	
(1) Pillar*							
Pillar 0	11 (84.6)	59 (60.2)	20 (95.2)	13 (92.9)	110 (43.7)	213 (53.5)	
Pillar 1	0.0	5 (5.1)	0.0	0.0	27 (10.7)	32 (8.0)	
Pillar 2	0.0	17 (17.3)	0.0	0.0	57 (22.6)	74 (18.6)	
Pillar 3	2 (15.4)	14 (14.3)	0.0	0.0	45 (17.9)	61 (15.3)	
Pillar 4	0.0	3 (3.1)	1 (4.8)	1 (7.1)	13 (5.2)	18 (4.5)	
Total	13 (100.0)	98 (100.0)	21 (100.0)	14 (100.0)	252 (100.0)	398 (100.0)	
(2) Type of scheme*							
Central government	11 (84.6)	75 (76.5)	19 (90.5)	14 (100.0)	184 (73.0)	303 (76.1)	
State government	2 (15.4)	15 (15.3)	1 (4.8)	0.0	55 (21.8)	73 (18.3)	
Other $^{\Psi}$	0.0	8 (8.2)	1 (4.8)	0.0	13 (5.2)	22 (5.5)	
Total	13 (100.0)	98 (100.0)	21 (100.0)	14 (100.0)	252 (100.0)	398 (100.0)	

<sup>\*</sup>Multiple schemes and types of schemes in a single study are counted. \*\*Number of times the type of scheme and ISP pillar reflected in the literature. Secondary data analysis<sup>y</sup>: included studies where secondary data (from reports and surveys) were used for analysis. Other \*\Psi\$ = schemes or policies by LIC (Life Insurance Corporation of India) and private policies and schemes sponsored by the Agricultural Insurance Board and indigenous safety net in the traditional society, which has been functional in the absence of other alternative social protection measures for senior citizens.

Bangladesh has introduced two government-sponsored old age pension schemes under social assistance viz. the "Old Age Allowance" (1998) and "Widow Allowance Programme" (1998). Social assistance in the form of minimum pension is given to poor and destitute older adults including widows and women with abusive husbands. Besides, under the government pension scheme, the following types of pensions are offered to public sector employees: (1) compensation pension, (2) superannuation pension, (3) invalid pension, (4) retiring pension, (5) optional pension, and (6)

family pension, which in case of death, is given to the family of the pensioner/employee.

The government of Bhutan provides pension benefits to government employees and provident fund members, under the "National Pension and Provident Fund Scheme" (March 2000). Different pension benefits under this scheme are structured under the "National Pension Plan" (Tier 1) and "Provident Fund" (Tier 2). This pension is under pillar 2 of the ISP classification (mandatory cocontribution) and pension benefits are based on the monthly cocontribution by the employee.

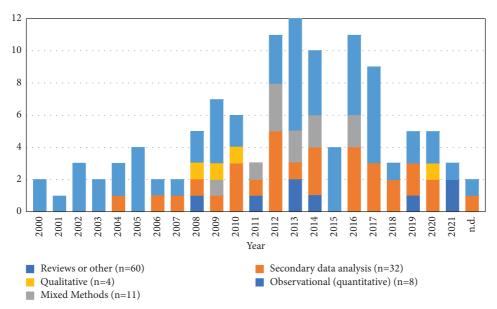


FIGURE 3: Number of publications (year-wise) according to study designs. \*Year 2021 is only considered till the month of May; n.d = year of publication "not defined".

The government of India has introduced various social assistance programs for the marginalized and deprived sections of the society. "National Social Assistance Program (NSAP)" (1995) is one such program that includes meanstested social security benefits for the marginalized populations such as poor older adults including widows and differently abled populations. The NSAP via its different programs, such as the (1) Indira Gandhi Old Age Protection Scheme (IGNOAPS), (2) Indira Gandhi Widow Pension Scheme (IGWPS), (3) Indira Gandhi National Disability Pension Scheme (IGNDPS), (4) National Family Benefit Scheme, and (5) Annapurna Scheme, provides monthly pension benefits and in kind (as food grains in Annapurna scheme) to the older adults living below the poverty line. This is a central government program, and the pension varies for different schemes under the NSAP (such as IGNOAPS, IGWPS, and IGNDPS), and specifically for IGNOAPS, the total financial pension benefit depends on the amount of state contribution. In addition, different state government-sponsored old age pension schemes such as "Sandhya Suraksha Yojana" in Karnataka and "Shravanbal Pension Scheme" by the state government of Maharashtra, for older adults, widows, and unorganized sector workers, are operational in different parts of the country. The government of India has also introduced pension schemes for civil service employees and defense personnel, e.g., the "National Institute of Social Defense Taxation Rebate" under the pillar 1 of the ISP classification. There are various mandatory contributory and voluntary contributory schemes such as the "Atal Pension Yojana "(2015), "Employees Provident Fund" (1952), "National Pension System" (2004), "Payment of Gratuity Act" (1972), and "Public Provident Fund (1968)," operational for the people working in the public, private, and unorganized sector. The government of India also ensures food security for older adults via the "Annapurna Scheme," where the food grains are given free of cost to destitute older adults.

Over the years, Nepal has introduced various government-sponsored means-tested social protection schemes that include old age pensions for older adults. One of these schemes is the "Nepal Social Pension Scheme" (1995), which is for older adults and widows above 70 and 60 years, respectively, from the race deemed as endangered. The "Senior Citizen's Allowance" (2009) which was earlier operational as "Old Age Allowance" is given to older adults above 70 years and for older adults above 60 years of age belonging to the Dalit and Karnali communities. Similarly, Social pensions for the elderly, with a preference for widows (1995) and Helpless Widows Allowance (1996) are some of the governmentsponsored social assistance schemes for elderly widows with no support. For disabled people, an old age pension of 150 NPR (USD 1.56) was introduced under the "Allowance for Disabled People" (1996) scheme of the Nepalese government. In addition, the government of Nepal provides employee pensions to all civil servants, teachers, army officials, and police officers, under the Government Pension Scheme. A specific tergenerational or intrafamilial ISP, under pillar 4 of ISP, has been prevalent in Nepal, and this type of income support is known as "Jiuni," and under this, the family inheritance or property is given to the offspring or any individual who provides support to the older adult till his/her death.

The government of Pakistan provides pension benefits to employees from both the public and private sectors under the "Employee Old Age Benefit Institution Scheme" (1976) and Earnings-related pensions for civil servants. Similarly, voluntary cocontribution benefits, under ISP pillar 3, are also provided by the government of Pakistan, under the "Voluntary Pension Scheme" (2005) and "Government Service Pension Fund" (1954)5 to the registered tax-payers and government sector employees.

Over the years, under the social protection programs, Sri Lanka has introduced various means-tested old age pension schemes such as "Pilot Social Pensions" (2007) and "Samurdhi National Poverty Alleviation Programme" (1995). The government of Sri Lanka has also introduced mandatory contributory schemes, such as the "Civil Pension Scheme" (1947), "Public Servants Provident Fund" (1942), "Employee Private Fund/Employee Trust Fund/Approved Private Sector Provident Fund" (1981), and "Public Sector Pension Scheme" (2008), for civil servants and employees of both public and private sector. Voluntary contributory schemes, viz. the Farmers' Pension and Social Security Benefit Scheme (1987), the "Fishermen's Pension and Social Security Benefit Scheme" (1990), and "Pension and Social Security Benefit Scheme for Self-Employed Persons" (1996), have also been operational for people working in the unorganized sector such as agriculture sector.

4.3. Evidence on the Impact of ISPs on Older Adults Living in South Asia. There were 25 studies that assessed the impact of ISPs on older adults residing in South Asia [61, 87–91, 95, 97–99, 101, 106, 111, 112, 114, 119, 121, 124, 126, 128, 130–132, 134, 135] as shown in Table 3. More information about these studies based on the geographical location is provided in the following sections.

4.3.1. Bangladesh. Out of the 25 studies that assessed the impact of ISPs, four studies were based in Bangladesh [98, 114, 131, 135]. These studies assessed the impact of government-sponsored schemes such as the Old Age Allowance Program (pilar 0) on food security, poverty rates, quality of life, and social security. The approaches used for impact assessment were cross-sectional survey [114], simulation and modelling [98], qualitative case study [131], and mixed method study [135].

4.3.2. India. Sixteen studies were based in India [61, 87-91, 95, 97, 101, 106, 111, 112, 121, 128, 130, 134].All the studies from India assessed the impact of the government-sponsored IGNOAPS, both at the national level and separately for different states, e.g., IGNOAPS in Puducherry [89, 121], Karnataka [90, 95], and Andhra Pradesh [91, 130]. Three studies assessed the impact of NOAPS, which is the older version of IGNOAPS, with variations in eligibility criteria and benefits [97, 106, 128]. One study that assessed the impact of the Old Age Financial Assistance Scheme provided by the government of Delhi [134] was identified. The identified literature from India assessed the impact of ISPs on the following outcomes: income or financial security, social security, socioeconomic status, health status of the elderly, access to healthcare, food security, household welfare indicators including household expenditure and expenditure patterns, poverty status, labour supply, elderly employment, elderly living arrangement, livelihood, health-related quality of life (HRQOL), awareness about the schemes, implementation of the scheme, trends, and variations

related to with regards to the implementation of the scheme, perception of older adults about the scheme, and satisfaction with the scheme.

Most of the identified studies assessed the impact of the old age pension schemes via analysis of the secondary data from national-level surveys such as the National Sample Survey (NSS) and the Indian Human Development Survey (IHDS) [61, 87-91, 95, 97, 101, 111, 112]. The Population Research Centre, 2009 used primary survey and block, district state-level secondary data to assess the impact of NOAPS in Jammu and Kashmir. One study used qualitative interviews such as in-depth interviews and focused group discussions to assess the impact of old-age pension schemes and to assess the perception and satisfaction of older adults regarding the schemes. [134] Another study assessed the impact of the program by conducting a one-time crosssectional survey [128]. Two studies from India used mixed methods i.e., included both qualitative and quantitative components to assess the impact of the old age pension schemes [121, 130].

4.3.3. Nepal. Two of the identified impact assessments were based in Nepal [126, 132]. Identified studies based in Nepal assessed the impact of government-sponsored social assistance schemes, i.e., Old Age Allowance Program [132] and the government-sponsored Widow Allowance Program and noncontributory social pension schemes (pillar 0) [126] on social security, livelihood, health status, household wellbeing, and static poverty gap. The [126] study adopted the mixed methods approach to assess the impact of ISPs, whereas the study in reference [132] is a qualitative study with an additional component of secondary data analysis.

4.3.4. Sri Lanka. The authors identified one impact assessment from Sri Lanka that used participatory research using qualitative interviews of the stakeholders (including the older adults) to assess the impact of government-sponsored schemes [124]. The impact of schemes, such as the Old Age Allowance Programme (pillar 0), Helpless Widows Allowance (pillar 0), National Old Age Pension Scheme (pillar 0), Old Age Allowance Scheme (pillar 0), and Programme for Widowed, Deserted, and Destitute Women (pillar 0), on social security was assessed in this study.

4.3.5. Multicountry Research. Two studies assessed the impact of old-age pension schemes in both Bangladesh and Nepal [99, 119]. One of these studies assessed the impact of the Old Age Allowance Program (pillar 0) [119], whereas the authors in reference [99] assessed the impact of Old Age Allowance (pillar 0) and the cocontributory schemes for civil servants and other employees such as Civil Servant Retirement Scheme (CSRS) (pillar 1), Old Age Allowance (pillar 0), Government Pension Scheme (pillar 1), and Employees Provident Fund (pillar 2). Both these studies used primary surveys and secondary data analysis to assess the impact of ISPs on social security, food security, and financial security of older adults.

TABLE 3: Mapping for evidence on impact of ISP in South Asia.

Study ID	Categories  Intervention name and type (name and type of the income	Study population (older adult, dependent, widow/	Outcome (income security, well-being,	Specific location	Type of evidence (primary research	Gaps identified (gaps in research knowledge and
,	support program) Subcategories (country	widower, and separated) )	SES, and health)		and SR)	evidence)
	Bangladesh	All ever-married				
[114]	Old Age Allowance (pillar 0) and Widow and Poor Women Allowance (pillar 0)	single women and older adults above 60 yrs residing in 10 districts of Bangladesh	(1) Food security (2) HRQOL	Specific location not mentioned	Cross-sectional survey	Cross-sectional survey is used to assess the impact o old age allowance scheme
[98]	Old Age Allowance (OAA) Scheme (pillar 0)	Sample population of 60 yrs. Older people covered under household income and expenditure survey	Poverty rates among older adults and >60 years (in %) of using the Oxford Equivalence Scale and alternative Equivalence Scale	Specific location not mentioned	Simulation and modelling	None identified
[131]	(1) Old Age Allowance (OAA) (pillar 0) and Allowances for the Widows, Deserted, and Destitute (AWDD) (pillar 0)	People above 45 yrs. Residing in Roumari upazila and Rajibpur upazila of Bangladesh	<ul><li>(1) Food consumption</li><li>(2) Human development</li></ul>	Specific location not mentioned	Qualitative case study	Not an ideal methodology for assessing the impact of the schemes. Research methodology is no clearly mentioned
[135]	Old Age Allowance Program (pillar 0)	Older adults above 65 yrs. Residing in two unions of Galachipa upazila under Patuakhali district	<ol> <li>Food security</li> <li>Healthcare access</li> <li>Social security</li> <li>Quality of Life</li> </ol>	Specific location not mentioned	Mixed methods study	Evidence is based on one-time survey
India		Sample population			Secondary data	
[87]	IGNOAPS (pillar 0)	selected for the IHDS survey	Income security and labour supply	Specific location not mentioned	analysis using IHDS data	None identified
[91]	IGNOAPS (pillar 0)	Older adults above 65 yrs and of age (both beneficiaries and nonbeneficiaries) living in Anantapur, Ranga Reddy and West Godavari districts of Andhra Pradesh	(1) Awareness of the scheme (2) Process and effectiveness of the current pension implementation system (3) Income and expenditure pattern (4) Impression on the scheme	Andhra Pradesh	Impact evaluation using secondary data analysis and primary survey data	The methodology used for impact evaluation is not very clearly described in the report. It is not clear how the authors have merged secondary data analysis and primary survey to find the impact or the rationale of using these two kinds of data collection methods for the evaluation

Table 3: Continued.

	Categories					
Study ID	Intervention name and type (name and type of the income support program)	Study population (older adult, dependent, widow/ widower, and separated)	Outcome (income security, well-being, SES, and health)	Specific location	Type of evidence (primary research and SR)	Gaps identified (gaps in research knowledge and evidence)
	Subcategories (country Bangladesh	7)				
[89]	IGNOAPS (pillar 0)	Older adults above 65 yrs of age (both beneficiaries and nonbeneficiaries) living in Gulbarga, Mandya, and Kodagu districts of Karnataka	(1) Awareness of the scheme (2) Process and effectiveness of the current pension implementation system (3) Income and expenditure pattern (4) Impression on the scheme	Karnataka	Impact evaluation using secondary data analysis and primary survey data	The methodology used for impact evaluation is not very clearly described in the report. It is not clear how the authors have merged secondary data analysis and primary survey to find the impact or the rationale of using these two kinds of data collection methods for the evaluation
[90]	IGNOAPS (pillar 0)	Older adults above 65 yrs of age (both beneficiaries and nonbeneficiaries) living in Puducherry and Karaikal districts of Puducherry	(1) Awareness of the scheme (2) Process and effectiveness of the current pension implementation system (3) Income and expenditure pattern (4) Impression on the scheme	Puducherry	Impact evaluation using secondary data analysis and primary survey data	The methodology used for impact evaluation is not very clearly described in the report. It is not clear how the authors have merged secondary data analysis and primary survey to find the impact or the rationale of using these two kinds of data collection methods for the evaluation
[91]	IGNOAPS pillar 0	Older adults above 65 yrs of age (both beneficiaries and nonbeneficiaries) living in Vellore, Perambalur, and Nilgiri districts of Tamil Nadu	(1) Awareness of the scheme (2) Process and effectiveness of the current pension implementation system (3) Income and expenditure pattern (4) Impression on the scheme	Tamil Nadu	Impact evaluation using secondary data analysis and primary survey data	The methodology used for impact evaluation is not very clearly described in the report. It is not clear how the authors have merged secondary data analysis and primary survey to find the impact or the rationale of using these two kinds of data collection methods for the evaluation

Table 3: Continued.

	Categories							
Study ID	Intervention name and type (name and type of the income support program)	Study population (older adult, dependent, widow/ widower, and separated)	Outcome (income security, well-being, SES, and health)	Specific location	Type of evidence (primary research and SR)	Gaps identified (gaps in research knowledge and evidence)		
	separated) Subcategories (country) Bangladesh							
Grassroot Research and Advocacy Movement, n.d.	IGNOAPS (pillar 0)	Beneficiaries of IGNOAPS residing in Karnataka state	Trends and variations w.r.t of the different dimensions of the implementation of the scheme, for e.g., allotment of new beneficiaries; average duration of pensions for beneficiaries; and delay between beneficiary approval and first pension delivery	Karnataka	Secondary data analysis using beneficiary list of the entire state and NSAP MIS database	Methodology to assess the impact of the program is not clearly reported		
[121]	IGNOAPS (pillar 0)	Older adults above 55 yrs of age and stakeholders i.e., family and Anganwadi workers	Perception of older adults on the scheme and satisfaction with the scheme	Puducherry	Mixed methods primary study with qualitative and quantitative components	Information on the impact of the scheme is majorly based on the qualitative component		
[97]	NOAPS (pillar 0)	Sample population selected during two rounds of NSS survey 2004-05 and 2007-08	Elderly employment, household expenditure, and elderly living arrangements	Specific location not mentioned	Secondary data analysis using data from two rounds of NSS survey (61 <sup>st</sup> and 64 <sup>th</sup> round)			
[101]	IGNOAPS (pillar 0)	Sample population selected during IHDS survey	Labour supply of the elderly beneficiary	Specific location not mentioned	Secondary data analysis of two waves of Indian Human Development Survey (IHDS) data	None identified		
[61]	IGNOAPS (pillar 0)	Older adults above the age of 5 yrs and living below the poverty line	Income security and poverty status	Specific location not mentioned	Impact evaluation using secondary data	Not enough information on the methodology of impact evaluation. Impact evaluation looks incomplete		
[128]	NOAPS	60 yrs. and above and rural tribal and scheduled caste population	Social security	Chhattisgarh, Madhya Pradesh, Gujarat, and Rajasthan	Cross-sectional household and individual-level survey	One-time survey was used to assess the impact of the program		
[106]	NOAPS (pillar 0)	Both beneficiaries and nonbeneficiary older adults residing in Anantnag and Kupwara in the Kashmir region and Doda and Rajouri in Jammu region	(1) Process related to the implementation of the scheme (2) Process of availing the benefits by the beneficiaries (3) Impact of the scheme (not reported like this, out of data extractor's assumption)	Jammu and Kashmir	Primary survey and block, district, and state-level secondary data	This impact evaluation was performed before NOAPS was revised into IGNOAPS; therefore, the findings are based on the eligibility criteria and benefits for the NOAPS scheme		

Table 3: Continued.

	Categories					
Study ID	Intervention name and type (name and type of the income support program)	Study population (older adult, dependent, widow/ widower, and separated)	Outcome (income security, well-being, SES, and health)	Specific location	Type of evidence (primary research and SR)	Gaps identified (gaps in research knowledge and evidence)
	Subcategories (country Bangladesh					
[130]	IGNOAPS (pillar 0)	Tribal elderly above 65 yrs and living below the poverty line, from the Nyishi community of the Kurung Kumey district in Arunachal Pradesh	Poverty alleviation, perceptions of the elderly about the scheme, expenditure patterns of the older adults, use of pension by the tribal older adults, and nutritional security	Andhra Pradesh	Mixed methods study with quantitative survey and qualitative interview components	Information from a one-time survey, supported by qualitative interviews, is used to assess impact. Research methodology including analysis is not clearly mentioned for survey and in-depth interviews.
[134]	Old age financial assistance scheme (government of Delhi) (pillar 0)	Older adults above 60 yrs. of age residing in north-east district of Delhi	<ul><li>(1) Economic or financial independence</li><li>(2) Social relevance</li><li>(3) Health status</li></ul>	Delhi	Qualitative study	The methodology used in the paper, i.e., qualitative in-depth interviews for only 51 older adults, is not an ideal method to assess the impact or effectiveness of the scheme
[111]	IGNOAPS pillar 0	Age = 60 yrs and from above BPL households	Household welfare indicators viz. consumption expenditure, income, assets, and poverty	Specific location not mentioned	Secondary data analysis using two rounds of IHDS data	None identified
[112]	IGNOAPS (pillar 0)	Sample population selected for IHDS 2004-05 and 2011-12 surveys	(1) Income security (2) Social security (3) Employment	Specific location not mentioned	Secondary data analysis using two rounds of IHDS data	None identified
Nepal						
[126]	Noncontributory social pension scheme (pillar 0) and widow allowance (pillar 0)	Older adults residing in Taplegunj, Sindhupalchowk, Kathmandu, Rolpa, Baglung, Kalikot, Nawalparasi, Mahottari, Siraha, Udayapur, Makwanpur, Banke, Kailali, and Doti districts of Nepal	<ul><li>(1) Social security</li><li>(2) Livelihood</li><li>(3) Health status</li></ul>	Specific location not mentioned	Mixed method study	Evidence is based on the one-time survey
[132]	Old Age Allowance	Older adults above 60 yrs covered under the national survey	<ul><li>(1) Poverty (static poverty gap)</li><li>(2) Household wellbeing</li></ul>	Specific location not mentioned	Qualitative and secondary data analysis	Not enough information on the methodology to assess the impact

TABLE 3: Continued.

	Categories					
Study ID	Intervention name and type (name and type of the income support program)	Study population (older adult, dependent, widow/ widower, and separated)	Outcome (income security, well-being, SES, and health)	Specific location	Type of evidence (primary research and SR)	Gaps identified (gaps in research knowledge and evidence)
	Subcategories (country Bangladesh	)				
Sri Lanka						
[124]	(1) Old Age Allowance Programme (pillar 0) (2) Helpless Widows Allowance (pillar 0) (3) National Old Age Pension Scheme (pillar 0) (4) Old Age Allowance Scheme (pillar 0) (5) Programme for Widowed, Deserted, and Destitute women (pillar 0)	Older adults of above 60 yrs. residing in Matara and Matale districts of Sri Lanka	Social security	Specific location not mentioned	Participatory research using qualitative interviews of the stakeholders (including the older adults)	Evidence is based on qualitative information provided in the form of opinions and perceptions of the respondents
Multicountry	research					C 1
[119]	Old Age Allowance Program (pillar 0) and Senior Citizens Allowance	Older adults above the age of 60 yrs	Food security, social security, and economic security	Bangladesh (Hijli model village under Manikganj upazila/ municipality) Nepal	Primary qualitative study and secondary information	Secondary information from a few primary studies is supported by qualitative interviews. Proper methodology for assessing impact is not reported
[99]	Bangladesh (1) Civil Servant Retirement Scheme (CSRS) (pillar 1) (2) Old Age Allowance (pillar 0) Nepal (1) Government Pension Scheme (pillar 1) (2) Employees Provident Fund (pillar 2) Old Age Allowance (pillar 0)	Sample population of older results above 60 yrs. covered by surveys in Bangladesh and Nepal	<ul><li>(1) Social security</li><li>(2) Financial security</li></ul>	Bangladesh and Nepal	Impact evaluation via secondary data analysis	Methodology used for the impact evaluation is not clearly reported

HRQOL, health-related quality of life; IGNOAPS, Indira Gandhi National Old Age Pension Scheme; IHDS, Indian Human Development Survey; MIS, management information system; NOAPS, National Old Age Pension Scheme; NSAP, National Social Assistance Program; NSS, National Sample Survey; SES, socioeconomic status.

The gap in the identified evidence on the impact of the old age pension schemes was the use of research methods such as qualitative study with few participants and one-time surveys such as cross-sectional surveys for assessing the effectiveness of the schemes. Also, in a few evaluation reports, the research methodology mentioned was not clearly described, and the explanation of the data collection methods and data analysis was missing. More information on the evidence identified for the impact of ISP on older adults is given in Table 3.

#### 5. Discussion

A total of 115 studies were considered for analysis in this scoping review. Around 25 studies reported the impact of the ISP schemes, of which most were from India. The majority of these studies assessed the effectiveness or impact of the government-sponsored schemes (pillar 0) on the lives of older adults and belonged to the vast spectrum of different study design methods.

The authors did not identify relevant literature on ISP from Afghanistan and Maldives. A probable reason may be the absence of research evidence on ISPs in these countries or the unavailability of research evidence on the global platform. There are also challenges for conducting research in conflict areas such as Afghanistan, due to the absence of proper infrastructure, fear and mistrust among respondents, and other cultural issues, leading to the unavailability of evidence on policy-relevant issues [137].

Most of the mapped evidence that provided information on the different ISPs was in the form of organizational reports available from the different organizational and government websites. This finding reiterates the importance of searching for additional resources and grey literature while mapping and synthesizing evidence on policy-relevant and social science topics. One of the important findings of this scoping review is that no systematic review evidence was mapped, and a plausible reason for this can be the absence of methodologically sound primary studies and the lack of impact evaluations or experimental studies on the topic. Few impact evaluations (mostly from India) with unclear methodology were identified that assessed the impact of ISP on the lives of older adults. A large proportion of the impact evaluations provided information on the effect of public old age pension schemes under social assistance and protection constituting pillar 0. This finding highlights the progress of South Asian governments in reaching the Sustainable Development Goal (SDG) 1-Target 3 of implementing social protection systems and covering the poor and vulnerable under these systems [138].

The information about different ISP schemes, as mentioned in the identified research literature, is given in the Supplementary file. From the list of identified schemes, most focused on pillar 0 or social pensions and the least on pillar 4. Of all the schemes, most were exclusively focused on pensions (either contributory or noncontributory), wherein individuals were eligible to receive a monthly pension upon reaching an older adult status, which in the majority of the schemes was 60+ years; nevertheless, the age of older adults'

status varied, ranging between 55 and 70 years. Furthermore, schemes focusing on other vulnerable populations with broad age groups that included older adults were added. These vulnerable populations were widows (Bangladesh, India, Nepal, and Sri Lanka, all pillar 0), disabled (India, Nepal, and Sri Lanka, pillar 0), bereaved households in the event of the death of the primary breadwinner with an age range of 18–60 years (India, pillar 0), or in-service government employee (India, pillar 2).

All pillar 0 schemes were identified from Bangladesh, India, Nepal, and Sri Lanka; of these, the oldest (Public Welfare Assistance Allowance or Pin Padi Programme-1939) was launched by the government of Sri Lanka and the newest (Shravanbal Pension Scheme-2021) was introduced by the government of Maharashtra, India. The authors did not identify pillar 0 schemes from other South Asian countries; it might be because of limitations in our search by restricting it to the English language or the noncontributory social pension schemes are not being introduced by the concerned governments. All pillar 0 schemes (except the Shravanbal Pension Scheme by the government of Maharashtra, India) were restricted to individuals belonging to low socioeconomic stratum (statecertified below poverty line card holders or defined annual income, for instance, old age allowance scheme in Bangladesh could be availed by individuals with an annual income of less than USD 134.58). Almost all the pillar 0 older adults' pension schemes offer nominal monthly cash benefits ranging from approximately USD 1.26 (Nepal Social Pension scheme) to USD 25.25 (Senior Citizen's Allowance of Nepal focusing on older adults of Dalit and Karnali communities). However, there are schemes from India that cater to the medical or nutrition needs of older adults instead of providing cash benefits. These schemes are the Odisha Treatment Fund and Emergency Treatment Programme, Vayomithram, and Sandhya Suraksha Yojana by state governments of Odisha, Kerala, and Karnataka, respectively, and Antyodaya Anna Yojana by Govt. of India. Of the pillar 0 schemes specific to widows, the Helpless Widows Allowance by the government of Nepal provides the least benefits (USD 0.84/month) and most (although nominal) by the state government of Kerala, India (USD 18.86/month).

Pillar 1 schemes were sponsored by the central government for the staff who served various departments and offered benefits as per the salary and contribution. These schemes, such as pillar 0, were from Bangladesh (launched in 1972), India (launched in 1961), and Nepal. There is heterogeneity in pillar 2–4 schemes and the target population; some were exclusively pension schemes, while others were provident funds, gratuity, life insurance, or health insurance and their benefits were dependent on the contributions. For example, some focused on farmers or fishermen (Sri Lanka) and self-help group members (India), while others focused on unorganized sector employees and the majority focused on government employees. Some of these schemes were voluntary while others were mandatory.

Financial fragility is an issue across the world, and older adults are the most vulnerable and at-risk population for poverty or social exclusion [139]. The developed regions of

the world have a higher percentage of older populations attributed to stable or declining fertility rates and increased survival rates. In contrast, the least developed and developing regions have a lower percentage, but a higher frequency of older adults than developed regions, due to a higher overall population [140]. In developing regions, such as South Asia and Sub-Saharan Africa, the primary focus is on the challenges related to the young population, such as education and employment, which are the focus of the national policies and planning. Whereas, the developed countries are diverting their resources to design innovative policies targeting the needs of older persons, such as structured social security and pension schemes for older adults, in addition to the policies for the young and working population [141]. According to the World Bank pensions data, the average percentage of gross domestic product (GDP) spent on public pensions is 1.1% in the seven South Asian countries (data for Afghanistan is not available), and there is not much difference in the spending in lower middle-income economies (all South Asian LMICs, except Afghanistan) and the upper middle-income economies (Maldives) in South Asia [142].

Despite having ISP schemes in South Asia, coverage and accessibility by the population are major issues. In the Asia-Pacific region (excluding China), 32.4% of older adults receive periodic cash as pensions, which is lower than the world average, i.e., approximately 50% [143]. As compared to other East Asian (50%) and Organization for Economic Co-operation and Development (OECD) countries (80%), South Asia has the lowest coverage of contributory pension schemes. For example, in Bangladesh, it is as low as 3.5%, in India, it is 10%, and in Sri Lanka, it is around 25% [119]. In 2011, the proportion of older adults receiving NSAP in India was 2.4% (constituting 29.6 million population) [143]. Although the beneficiaries of ISPs are lower in South Asia, it is steadily increasing over the years. For example, the proportion of older adults receiving pensions in India and Nepal increased to approximately 25% and 75%, respectively, in the year 2010 compared to 2000. Furthermore, access to ISPs is unfairly distributed among genders and places of residence, wherein women [119] and rural residents have less access to ISPs compared to their counterparts.

Retirement is a luxury for the workers of the formal sector (public or private), however, the majority of older people (especially those living in LMICs) do not have access to or get benefited from pensions; for their survival, they have to work until their physical health allows them to work and/or depend on family/charity [144]. Contributory and noncontributory ISPs may guarantee pensions to older adults, but these may not cover the actual target population, and the benefits may be inadequate and may not be affordable to many. Lack of coordination among the providers of ISPs and budgetary constraints may further escalate the utilization of these schemes.

*5.1. Strengths and Limitations.* This scoping review is one of the few reviews that has compiled and mapped the literature on the vital topic of old-age ISPs. The authors searched all

the potentially relevant resources such as electronic databases, organizational websites, government websites, and backward citation tracking of included studies to identify the articles relevant to the topic. Although a comprehensive search including all the relevant resources was conducted, there are chances that literature relevant to the topic might have been missed out. Organizational and government websites are an important literature resource for this review, and inaccessibility to these websites, specifically some of the government websites of South Asian countries, was one of the limitations in identifying country resources on ISPs. Similarly, a lot of literature on the topic can be found in books and resources that are behind paywalls, and/or the citations captured during the search that had absent full-text links; unavailability and inaccessibility of such literature was another limitation. Focusing on English language articles (due to financial constraints and lack of capacity in language-related skills) might have led to missing some of the relevant literature published in other regional and local languages.

#### 6. Conclusion

The review paves the way for future research to be undertaken in the area of income support for older adults in South Asia. With the rapidly ageing population in South Asia, it becomes imperative for the government and supporting national/international organizations to take swift action to ensure social protection, empowerment, and well-being of older adults including financial and food security. Future research should focus on studying the impact of ISPs and expanding ISPs for older adults in low-coverage countries, hence contributing towards achieving sustainable development, especially under SDGs 1, 2, and 3.

#### 6.1. Recommendations

- (1) The authors would like to recommend researchers to focus research on the important topic of ISPs for older adults in countries such as Afghanistan and Maldives, and to try to make the research available to the global community.
- (2) Also, evaluations of the ISPs (effectiveness or impact studies) for older adults are lacking, and the existing studies show ambiguity in their methodologies. The reason for the shortage of primary (evaluation) studies or evidence synthesis for the existing old-age schemes may be a lack of focus or funding in this domain. Therefore, we would like to recommend researchers to conduct high-quality impact evaluations and systematic reviews for the ISPs, so that these findings can be used by policymakers or program implementers to modify, improve, or fund the programs or research for the benefit of the older adult community.
- (3) One of the important findings of this scoping review is the identification of an ongoing experimental study by National Bureau of Economic Research

(NBER) to assess the causal effects of old-age pensions (completion year 2027) in India. This study will provide substantial evidence on the impact of ISPs that can be useful for future researchers synthesizing evidence on this topic.

- (4) In addition, to fulfill the dearth in literature, it is recommended that the research topic on income support for older adults should be considered during the research priority setting exercise and be featured in the research agenda of the South Asian countries.
- (5) Through this paper, the authors would also like to bring the focus of the global community on the issue of "decolonizing research." Researchers from the global south are required to contribute a high financial amount, to be able to make their research reach a larger audience, similarly, they have to pay high subscription charges for accessing the nonfreely available resources. We would like to recommend the global research community contemplate on the issue of decolonizing research and to provide some leeway to the researchers from LMICs (or global south) so that the availability of relevant resources does not remain a barrier in the identification and synthesis of empirical evidence.

#### **Abbreviations**

GDP: Gross domestic product HRQOL: Health-related quality of life

IGNOAPS: Indira Gandhi National Old Age Pension

Scheme

IGNDPS: Indira Gandhi National Disability Pension

Scheme

IGWPS: Indira Gandhi Widow Pension Scheme

INR: Indian rupee

ISP: Income support programs

LMIC: Low- and middle-income countries

NPR: Nepalese rupee OAA: Old age allowance

SDG: Sustainable development goals

USD: United States dollar.

#### **Data Availability**

The datasets used and/or analyzed during the current study are available from the corresponding author upon request.

#### **Additional Points**

What is Known about the Topic and What the Paper Adds? Income support programs (ISPs) for older adults are vital social support schemes. Income support via old age pensions has an impact on the financial stability, health status, and social status of older adults. Government-sponsored ISPs for economically backward older adults are functional in various countries including countries belonging to the South Asia region. However, not much information is available about these schemes and programs. This scoping review provides information on the different ISP schemes available in

countries of the South Asian region. It maps and collates information about the extent and type of literature available on ISPs in the countries belonging to the South Asian region. The review also provides information on the available literature on the impact of ISP in the South Asian region with regard to the financial, health, and social status of older adults.

#### **Conflicts of Interest**

The authors declare that they have no conflicts of interest.

#### **Authors' Contributions**

ER, PP, SSP, and TV contributed to the conceptualization of this scoping review. The database search was conducted by ER, PP, SSP, and TV, and a search for additional sources was carried out by ER, PP, SC, AMP, SSP, and TV. SC and AMP conducted the title and abstract screening in consultation with ER. ER, PP, SC, AMP, and SSP screened the full text of the citations included at the title/abstract stage screening. Data charting was carried out by ER, PP, SC, and AMP. Data analysis was conducted by ER and PP. ER, PP, SSP, and TV drafted the manuscript. All authors read and edited the manuscript.

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#### **Supplementary Materials**

Supplementary file: this document consists of (1) search strategy, (2) characteristics of the included studies table, and (3) a table giving information about different ISP programs operational in South Asia. Research checklist: PRISMA-Scr extension. (Supplementary Materials)

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