

Geriatric Care Delivery under NPHCE in Urban Rajasthan: Evidence from Jaipur District

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ABSTRACT

Background and Objectives: Increased life expectancy and advances in medical care have led to accelerated population aging in India. However, longevity is often accompanied by chronic illnesses and increased financial and social dependency. To address these challenges, the Government of India launched the National Program for Health Care of the Elderly (NPHCE), which aims to provide accessible and affordable geriatric care. **Objectives:** This study aimed to assess the awareness, utilization, and satisfaction with services provided under NPHCE among the elderly population.

Methods: A cross-sectional study was conducted among 429 elderly individuals using a predesigned, pretested, and structured questionnaire to collect data on awareness of government schemes, healthcare-seeking behavior, and utilization of outpatient and inpatient services.

Results: Awareness of NPHCE and related geriatric services was low, with only 27.5% of respondents reporting awareness. Awareness levels were comparable across genders (29.5% of males and 27.2 % among females), Although higher among males (30.3%) for specific services. Utilization patterns indicated a preference for government healthcare facilities; however, private healthcare providers remained a significant source of treatment. OPD services were the most commonly used, particularly among females, while males used IPD and combined services more often.

Conclusion: Despite the availability of dedicated geriatric services under NPHCE, awareness and utilization remain suboptimal. Strengthening community-level awareness and improving service delivery mechanisms are essential to enhancing program uptake and effectiveness.

Keywords

National Program for Health Care of Elderly (NPHCE), Geriatric Health, Health service utilization, awareness, Health-seeking behavior

INTRODUCTION

Aging is a universal phenomenon with a significant impact on health systems, social structures, and economic sustainability. In India, individuals aged 60 years and above are categorized as elderly, and their population has increased substantially from 24.7 million in 1961 to an estimated 137.9 million in 2022, with projections reaching 158.7 million by 2025 (1). This demographic transition has led to a rising burden of non-communicable diseases (NCDs), disability, and dependency, necessitating a comprehensive and responsive healthcare system (2). In response, the government of India launched the National Program for Health Care of the Elderly (NPHCE) in 2010 to integrate promotive, preventive,

curative, and rehabilitative services for the elderly population. The program aims to strengthen healthcare delivery at all levels, from primary care facilities to tertiary institutions, including the establishment of geriatric wards and outpatient services, as well as the establishment of referral linkages with Regional Geriatric Centers (3).

Complementing NPHCE, the Ayushman Bharat Initiative has expanded primary healthcare through Ayushman Arogya Mandir (Health and Wellness Centers), incorporating elderly and palliative care as key service components. These services include identifying high-risk groups, supporting families during palliative care home visits for the care of homebound/bedridden elderly and

disabled elderly persons, and supporting families in identifying behavioral changes in older people and in providing care for them. Linkage with other support groups and daycare centers, etc., operational in the area (4). Despite these government efforts, evidence suggests gaps in implementation, particularly in awareness, accessibility, and utilization of geriatric services. Limited outreach, inadequate human resources, and weak follow-up mechanisms continue to hinder effective service delivery, especially in underserved areas.

While several studies have explored aging and healthcare services utilization in India, there remains a paucity of district-level evidence assessing the functional status of NPHCE services and their uptake among the elderly population. This study aims to assess awareness, accessibility, and utilization of elderly healthcare services under NPHCE in Jaipur district, Rajasthan.

Study Design: A cross-sectional study was conducted to examine the availability and accessibility of services under the National Program for Health Care of the Elderly (NPHCE).

Scope of the study

The study was carried out in Jaipur district, Rajasthan, encompassing both urban and rural settings to capture the variations in service delivery and utilization across different levels of the healthcare system.

The study involved multiple stakeholders across the healthcare system. Key informant interviews were conducted with the State Nodal Officer for Geriatric Care, district Hospital officials, and healthcare providers from selected urban and rural Community Health Centers (CHCs) and Primary Health Centers (PHCs). In addition, a community-based survey was undertaken among elderly individuals residing in the catchment areas of selected health facilities. A total of 429 elderly participants (aged 60 years and above) were included in the study. The

sample included representation from both urban and rural populations to ensure diversity in socio- demographic and healthcare access characteristics.

Sample Size

Sample Size has been calculated using the standard formula. $N = Z^2pq/l^2$

Taking 63% as the prevalence of NCDs (India: Health of the Nation's States, 2017), the sample size was calculated for a 95% level of significance, a 5 % margin of error. The calculated sample size was 359. Considering a 20% attrition rate, the final sample size was adjusted to 429 participants. The sample ensured adequate representation of both older men and women.

Study Tools and Respondents

A thorough review of the operational guidelines of NPHCE, guidelines issued by the Department of Medical and Health Services/NHM Rajasthan for the implementation of NPHCE, was done for the preparation of the checklist for IDI at various levels.

Predesigned, pretested, and structured questionnaires were used to collect information from older people. This questionnaire had the following sections: Demographic, Social Dimensions, Economic Security, Health Conditions and Well-being, and Availability of Health and Well-being Services.

RESULTS AND DISCUSSION:

Socio-demographic and related information

A total of 429 elderly participants were included in the study, comprising 234 males (54%) and 195 females (46%). Nearly half of the participants (48.7%) belonged to the young-old age group (60-69 years), followed by 36.6% aged 70-79 years and 14.7% aged ≥ 80 years. The age distribution was comparable across genders.

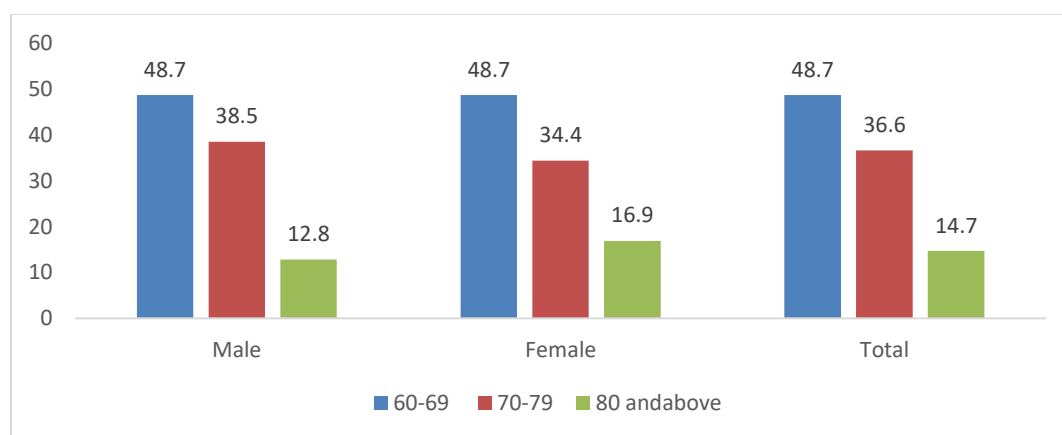


Figure 1 Age-wise distribution of respondents, n = 42

Morbidity and Medication Use

A high burden of non – communicable disease (NCDs) was reported by elderly participants, with 53.8 % having Hypertension, 47.1 % experiencing mobility issues, and 15.4 % having diabetes. Hypertension was significantly more prevalent among females (61.5% vs 47.4%; $p = 0.004$). Similarly, bone and Joint diseases (60% vs 42.3%;

$p < 0.001$) and mobility issues (57.4% vs 38.5%; $p < 0.001$) were also significantly higher among females. Oral health problems were also more common among females (15.4% vs 5.6%; $p=0.001$). No statistically significant gender differences were observed for diabetes, chronic lung disease, sensory impairment, or neurological conditions.

Table 1 Sex wise Prevalence of diseases among elderly

Overall, 86.9% of participants were on regular medication, with comparable proportions among males (85.5%) and females (88.7%).

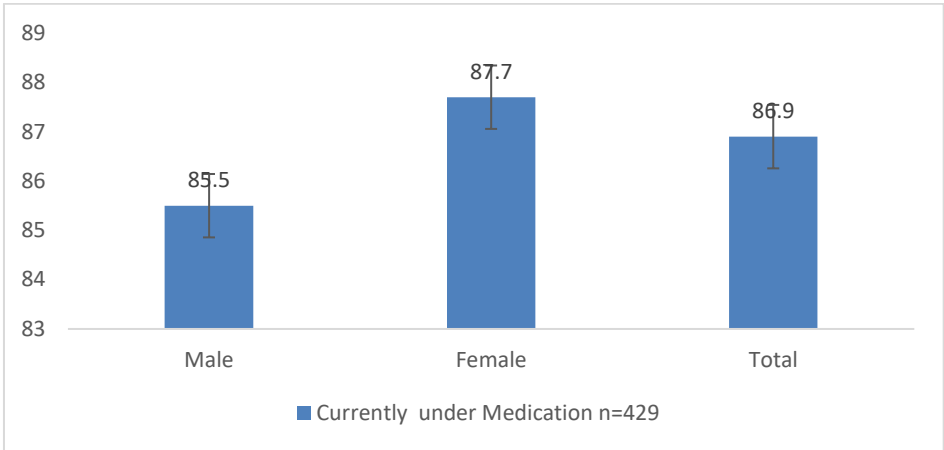


Figure 2 Currently under Medication

Healthcare- Seeking Behavior

Regarding healthcare preferences, 38.9% preferred government facilities, while 38% reported no specific preference. Females were significantly more likely to prefer private health care facilities compared to males ($p=0.0006$).

Utilization patterns showed that Community Health Centers (39.5%), Primary Health Centers (33.3%), and Private Facilities (43.1%) were most commonly accessed, with no significant gender differences.

Table 2: Preferred Healthcare Centre (n=429)

Table 3: Treatment from the type of healthcare centre (n=429)

Table 4: Services availed at Healthcare Centre (n=429)

Table 5: Types of Services availed from nearby Government Hospital (n=429)

Outpatient services (OPD) were the most frequently utilized (72.3%), particularly among females (79.5% vs 66.2%; $p=0.013$), whereas males were more likely to use IPD and combined services

Table 5 lists the types of medical services available at nearby government hospitals. The services most commonly availed by older people are treatment for NCDs, regular consultation services, and treatment for eye-related issues (46.2%, 45.5%, and 41.3%, Services by the Government

respectively), with no significant gender differences in utilization. The services that have not been used as frequently are Medical Emergencies and Trauma, and Mental Health Problems (2.1% and 2.6%, respectively). Low utilization of Mental health, emergency, and other services suggests areas that need further attention and improvement.

Awareness and Utilization of Elderly and Palliative Care

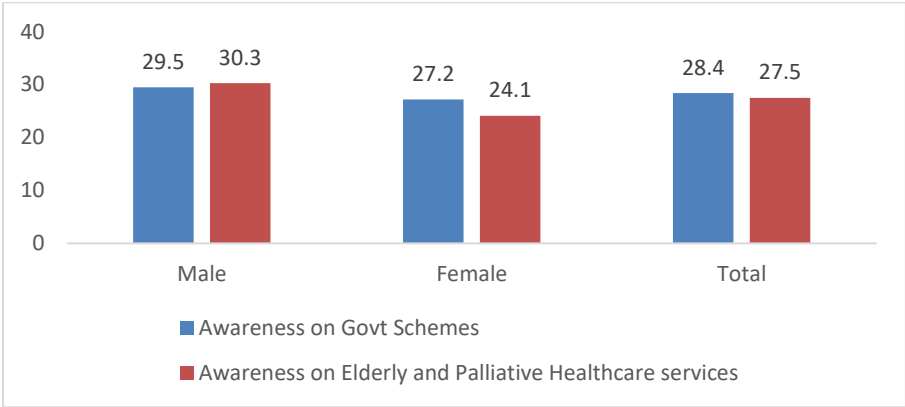


Figure 3 Awareness and Utilization of Elderly and Palliative Care Services by the Government

The study highlights that awareness of government schemes and elderly healthcare services remains relatively low. Only 28.4% of older people were aware of government schemes, and awareness of elderly-specific healthcare services was also limited, with slightly higher awareness among males (30.3%) than among females (24.1%). The lower level of awareness among females points to existing gender disparities and suggests that lack of information may act as a critical barrier to accessing available services, s particularly for women.

Satisfaction with the Behavior of Staff and Health Services

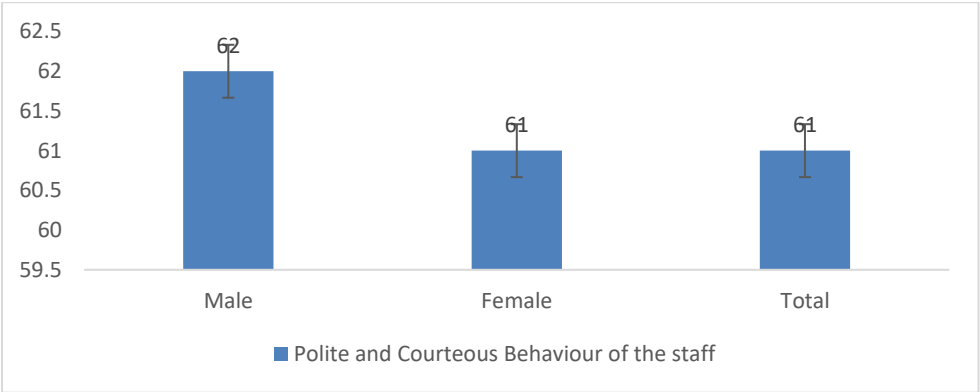


Figure 4 Behavior of Staff and Health Services

Figure 4 indicates that a significant majority of older people (61%) are satisfied with staff behavior and the overall health services provided at healthcare centers. This suggests that staff members are widely perceived as polite, respectful, and responsive to the needs of elderly patients, a crucial component of patient-centered care.

Table 6 - Satisfaction with the Quality of Different Services Provided (n=429)

The findings indicate that overall satisfaction with the quality of services provided at the health center is relatively high among older people, particularly for the core service component. More than 90% of older people express satisfaction with the registration process, suggesting that entry-level procedures are efficient and user-friendly. Satisfaction with waiting time is also fairly high, with 83.1% of females and 81.2% of males expressing contentment, indicating that service delivery is reasonably timely. Similarly, a large proportion of elderly individuals (80%) reported satisfaction with consultation, treatment, and medication. Satisfaction with lab services is higher among males (64.1%) than among females (57.9%), resulting in a combined rate of 61.3%. More concerning is the relatively low satisfaction with emergency care: 44.1% of males and 35.9% of females reported satisfaction (overall, 40.3%). Similarly,

satisfaction with other service deliveries remains low, at 36.8% for males and 30.3% for females (overall 33.8%), indicating potential gaps in service quality, accessibility, and responsiveness.

Across most service domains, males consistently report slightly higher satisfaction rates than females, which may point to gender based differences in access, expectations, or experiences within the health system.

Furthermore, participation in health promotion and prevention activities is relatively low, with only 26.9% of males and 24.6% of females visiting health facilities for such purposes. This suggests that while curative services

Table 7 : Satisfaction Level from Government Healthcare Services (n= 429)

are being utilized and appreciated, engagement in promotive and preventive health activities remains limited, highlighting an important area for strengthening outreach, awareness, and community-based interventions

The results in Table 6 reveal that a considerable proportion of the elderly population reports high levels of satisfaction with Government Health Care services. However, satisfaction intensity varies across categories. A relatively small percentage of respondents express dissatisfaction: 8.6% of males and 11.8% of females. This suggests a negative perception exists but is not widespread, with dissatisfaction being slightly higher among females.

The largest proportion of respondents falls into the partial satisfaction category, accounting for 48.3% of males and 44.6% of females. This indicates that while many elderly individuals find the services acceptable, there are likely gaps in quality, accessibility, or responsiveness that prevent them from being fully satisfied.

In terms of satisfaction, 38.9% of males and 35.4 % of females report being completely satisfied with the services provided. This reflects a reasonably strong level of trust and approval of government healthcare facilities among a significant segment of the elderly population.

DISCUSSION

The study highlights important patterns in healthcare utilization, awareness, and satisfaction among the elderly population. Choice of health facility for treatment depends on multiple factors like gender, education, employment, socio – economic status, insurance, etc. (5) The study presents distinct gender- based preferences in the choice of health care facilities, where females predominantly prefer private health care facilities. At the same time, males show a greater inclination towards government facilities. These findings contrast with those reported by Md Sayed Hasan, whose study found that men were 27% more likely than older women to use private healthcare facilities (6). At the same time, a considerable proportion of both genders rely on a combination of public and private services, indicating a tendency toward dual utilization to meet diverse health care needs.

Regarding service utilization, the majority of elderly individuals reported accessing outpatient department (OPD) services for 1 to 12 months, while 37% continued to use these services for more than a year. This pattern reflects a sustained demand for outpatient care, likely driven by chronic health conditions and ongoing treatment requirements. Similar trends have been observed in the Longitudinal Aging Study in India (LASI) wave I, which reported that OPD utilization at public health facilities increases with age (7).

Further, findings from the Longitudinal Aging Study in India (LASI) Wave 1 also highlight gender-based inequalities in access to inpatient care. Women are less likely to utilize inpatient (IPD) services compared to men, primarily due to the financial burden associated with such care (8)

The study further highlights that awareness of government schemes and elderly healthcare services remains relatively low. Only 28.4% of older people were aware of

government schemes, and awareness of elderly-specific healthcare services was also limited, with slightly higher awareness among males (30.3%) than among females (24.1%). The lower level of awareness among females points to existing gender disparities and suggests that lack of information may act as a critical barrier to accessing available services, particularly for women. These findings contrast with a study conducted in a resettlement colony in Delhi, where 86.9% of older adults were aware of at least one social pension scheme; however, despite high awareness, actual utilization remained low (9). Findings from other studies conducted across India also report varying levels of awareness of government welfare schemes among older people, ranging from 49.5% to as high as 97.3 % (10-12)

Utilization of preventive and wellness services, such as yoga and other health-promoting activities, was very low, indicating a greater reliance on curative rather than preventive care among older people. Similar patterns have been reported in multiple studies; for example, in developed countries, utilization of preventive services is less than 30% even when they are free (13-14). In most studies, the preventive services include checkups, not wellness activities. A study found that older people's social participation determines the utilization of preventive services (15). 45.5 % of older people were going for regular consultation. The other most availed services include treatment for non-communicable diseases (46.2%) and eye problems (41.3%), reflecting the prevalent health concerns among the elderly population.

In terms of satisfaction, the findings indicate a moderately positive perception of government healthcare services, with 37.3% of elderly respondents fully satisfied and 46.6% partially satisfied. As with other findings, males report slightly higher satisfaction levels than females. Similar findings have been reported in a study conducted in Iran, in which elderly patients expressed moderate to high satisfaction with healthcare services. The study highlighted higher satisfaction with the technical quality of care and nursing services, while satisfaction was relatively lower for aspects related to staff communication (16). Furthermore, patient satisfaction demonstrates a gendered dimension, with differences in satisfaction levels and determinants observed between males and females (17). Therefore, while designing healthcare programs, it is important to incorporate these gender-specific differences to ensure more responsive and equitable service delivery.

Overall, the study highlights the need to strengthen awareness, improve outreach and follow-up services, and promote preventive healthcare practices, while also addressing gender disparities to ensure more equitable access and utilization of healthcare services among older people.

CONCLUSION

The study highlighted the low level of awareness among older people about elderly care services, underscoring the urgent need to strengthen information, education, and communication (IEC) efforts to raise awareness of available healthcare services and government schemes. Given that the outpatient services are the most utilized,

there is a clear need to streamline the elderly care services at Ayushman Arogya Mandir sub-centers and PHCs to improve accessibility. In addition, scaling up domiciliary visits, particularly for bedridden or disabled elderly, through enhanced human resources and targeted training can ensure more inclusive service delivery. The study also emphasizes the importance of promoting preventive and wellness activities, such as yoga, pranayama, and meditation, through Ayushman Arogya Mandirs and community centers, as well as organizing awareness workshops on lifestyle modification and early detection of non-communicable diseases. Finally, there is a critical need to advocate for increased funding and resource allocation under the National Program for Health Care of the Elderly to effectively address gaps in service coverage, particularly in underserved areas

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