Availability of Geriatric and Palliative Care Services and Their Cost-Effectiveness Analysis in Lucknow, Uttar Pradesh

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***Abstract*—Purpose: This study assessed the availability, accessibility, cost-effectiveness, and financial burden of geriatric and palliative care services in Lucknow.**
Methods: A cross-sectional descriptive study was conducted among 120 elderly patients (aged ≥60 years) and their caregivers using a structured questionnaire through face-to-face interviews. Data were analyzed using descriptive statistics.
Results: 70.8% participants reported availability of services, but only 41.7% found them easily accessible. Government facilities were most affordable (mean monthly cost ₹2,000), while private facilities were expensive (₹8,000) but provided better services. 75% of families experienced moderate to high financial burden, mainly due to treatment (43%) and medicines (31%).
Conclusion: Although geriatric and palliative care services are available in Lucknow, major gaps exist in accessibility and affordability. Strengthening public health infrastructure and financial protection mechanisms is urgently required.

***Index Terms*—Geriatric care, Palliative care, Elderly, Cost-effectiveness, Financial burden, Lucknow, India**

I. INTRODUCTION

India is witnessing rapid population ageing. The number of elderly persons (60+) is expected to reach 319 million by 2050. This demographic shift has significantly increased the demand for geriatric and palliative care services.

Geriatric care addresses the complex health needs of older adults, including multimorbidity, functional decline, and quality of life. Palliative care focuses on relief from suffering and improving quality of life for patients with life-threatening illnesses.

In India, both services remain limited, urban-centric, and poorly integrated. High out-of-pocket expenditure further increases the financial burden on families. Lucknow, the capital of Uttar Pradesh, has a mix of government, private, and NGO healthcare providers, yet localized evidence on availability and cost-effectiveness is scarce.

This study aims to bridge this gap by evaluating availability, accessibility, cost-effectiveness, and financial implications of geriatric and palliative care in Lucknow.

II. SIGNIFICANCE OF THE STUDY

This research provides first-hand local data on geriatric and palliative care in Lucknow. It highlights sectoral differences and quantifies economic burden, offering valuable inputs for policymakers, administrators, and healthcare planners to design more equitable and affordable services.

III. OBJECTIVES

Primary Objective: To assess the availability and cost-effectiveness of geriatric and palliative care services in Lucknow.

Secondary Objectives:

- To examine accessibility and distribution of services across public, private, and NGO sectors.
- To analyze cost components and financial burden on patients and families.

IV. REVIEW OF LITERATURE

Global studies show huge gaps in palliative care access, especially in low- and middle-income countries. In India, palliative care services are unevenly distributed and mostly concentrated in urban areas. High out-of-pocket expenditure remains a major challenge.

Geriatric services are also inadequate to meet the growing needs of the elderly population. Financial burden due to chronic care is well documented in several Indian studies.

V. METHODOLOGY

Study Design: Cross-sectional descriptive study. Study Area: Selected hospitals, palliative care centres, and community settings in urban and semi-urban Lucknow. Duration: 3–6 months. Sample Size: 120 participants (elderly patients ≥60 years and caregivers) using convenience sampling. Tool: Structured questionnaire. Data Collection: Face-to-face interviews after informed consent. Analysis: Descriptive statistics (frequency, percentage, mean).

VI. RESULTS

1. Availability of Services 85 (70.8%) participants reported services as available.

Table 1: Availability of Geriatric and Palliative Care Services

Category	n	%
Available	85	70.8
Not Available	35	29.2
Total	120	100

2. Accessibility Only 41.7% found services easily accessible.

Table 2: Accessibility Levels

Category	n	%
Easily Accessible	50	41.7
Moderately Accessible	40	33.3
Poorly Accessible	30	25.0
Total	120	100

3. Cost-Effectiveness by Sector

Table 3: Average Monthly Cost of Care

Sector	Mean Cost (₹)	% of Respondents
Government	2,000	16.7
Private	8,000	66.7
NGO	4,000	33.3

4. Financial Burden 75% experienced moderate to high burden.

Table 4: Level of Financial Burden

Category	n	%
Low	30	25.0
Moderate	50	41.7
High	40	33.3
Total	120	100

5. Major Cost Components (Average total ₹8,000/month)

Table 5: Distribution of Cost Components

Component	Amount (₹)	%
Consultation & Treatment	3,500	43
Medicines	2,500	31
Travel	1,000	12
Others	1,000	14
Total	8,000	100

VII. DISCUSSION

The study findings are consistent with national and global literature. While services are available to a majority, accessibility remains poor due to distance, waiting time, and limited centres. Government facilities are more affordable but often lack quality, whereas private facilities are costly.

The high financial burden (75%) driven by treatment and medicine costs aligns with previous Indian studies.

VIII. CONCLUSION

Geriatric and palliative care services are available in Lucknow but suffer from poor accessibility and high cost, especially in the private sector. There is an urgent need to strengthen government services, expand home-based care, and reduce financial burden on families.

IX. RECOMMENDATIONS

1. Establish more geriatric and palliative care units in government hospitals.
2. Improve accessibility through semi-urban centres and home-based services.
3. Provide subsidized medicines and treatment under government schemes.
4. Conduct community awareness programmes.
5. Train healthcare professionals in geriatric and palliative care.

6. Promote public-private-NGO partnerships.
7. Expand health insurance coverage for long-term and palliative care.

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