

Health and Morbidity Patterns among the Elderly in Urban Slums of Cachar District of Assam: A Cross-Sectional Study

Moushumi Biswas

Associate Professor, Department of Community Medicine, Silchar Medical College and hospital,
Ghungoor, Silchar-788014, Assam, India

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Corresponding author: Dr. Moushumi Biswas

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Abstract

Background: The elderly population in urban slums represents a particularly vulnerable group facing compounded health challenges due to aging, poverty, and poor living conditions. With increasing life expectancy and a growing geriatric population, understanding the morbidity pattern and healthcare utilization in these settings is essential for targeted public health interventions.

Objective: To assess the prevalence of non-communicable diseases, health-seeking behavior, and common health-related issues among elderly individuals aged 60–80 years residing in selected urban slums of Cachar district, Assam.

Methods: A community-based cross-sectional study was conducted from December 2023 to March 2024 among 150 elderly residents selected through simple random sampling across three urban slums (Kalibarichar, Malinibeel, and Railway Colony). Data were collected using a pre-tested structured questionnaire through direct interviews. Descriptive statistics were used for analysis.

Results: Among the participants, 58% were female and 63% belonged to the age group of 70–79 years. The majority (39%) were from the upper-lower socio-economic class, and 63% identified as Hindu. The most prevalent health conditions included ocular problems (42%), hypertension (41.3%), cardiovascular issues (34%), diabetes (30%), and joint problems (30%). Only 38% sought care at tertiary facilities, while 43% preferred primary health centers. Self-medication was reported by 46% of respondents. Mobility was impaired due to joint pain in 42% of participants, and 28% were reported to have psychological distress.

Conclusion: The study highlights a high burden of non-communicable diseases and underutilization of healthcare services among the urban elderly in slum settings. Focused geriatric health services, regular screening, and community-based interventions are urgently needed to address the unmet healthcare needs of this marginalized population.

Keywords: Geriatric health, Elderly population, Community-based study, socioeconomic status, ageing and healthcare.

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Introduction

Population aging is one of the most profound social transformations resulting from improved living conditions, healthcare advances, and declining fertility rates. Aging is a natural, inevitable process and while there is no universally defined threshold, both the United Nations and the Government of India consider individuals aged 60 years and above to be elderly [1,2].

In India, the elderly population currently comprises approximately 8% of the total population—around 98 million people—with slightly higher representation in rural areas (8.1%) compared to urban areas (7.9%). However, in states such as Assam, urban areas have a larger elderly population [2]. This proportion is projected to nearly double to

14.9% by 2036 as the elderly population rises to 23 crore [2]. Urban slum environments present unique challenges to geriatric health. Characterized by overcrowding, inadequate sanitation, limited infrastructure, low literacy, and poor access to healthcare, these conditions exacerbate health vulnerabilities among older populations [3].

Elderly individuals in these settings frequently experience multiple chronic diseases—including hypertension, diabetes, arthritis, visual and auditory impairments—and are also at risk for psychological comorbidities such as depression and anxiety [4,5]. Several community-based studies reinforce these issues. For instance, a cross-sectional study in Jorhat, Assam reported arthritis in 70.4% and visual

impairment in 58% of slum-dwelling elderly, with many facing financial barriers to treatment [4]. Similarly, research from Bhubaneswar slums found hypertension in 61.9%, diabetes in 45.2%, and acid peptic disease in 37.8% of participants, with an 84.8% rate of healthcare utilization [6]. A Davangere-based study further highlighted psychosocial concerns alongside physical morbidities, underscoring the complexity of elderly health in slums [7].

Recent findings from Kolkata slums show nearly 96% of older women suffer from multimorbidity—chiefly joint pain, dental issues, and hypertension—emphasizing the urgent need for integrated care approaches [8].

Research on self-care and health-seeking among slum-dwelling elderly also reveals significant gaps in health literacy and self-efficacy, leading to underutilization of preventive services and overreliance on secondary care [9]. Despite several national efforts to address elderly health, health-seeking behavior among slum elderly remains suboptimal due to socioeconomic constraints, low awareness, and access barriers [3,10]. Understanding these multifaceted patterns of morbidity and care-seeking behavior is vital to crafting evidence-based, targeted interventions for geriatric populations in urban slums.

This study addresses this gap by examining the morbidity profile, awareness of non-communicable diseases, and health-seeking behaviors of elderly

residents in urban slums of Cachar district, Assam. Insights from this research will support effective policy and programmatic strategies to enhance geriatric health in marginalized communities.

Methodology

- **Study Area:** Urban slums of Cachar district (Kalibarichar, Malinibeel, and Railway Colony)
- **Study Design:** Community-based cross-sectional study
- **Study Population:** Elderly adults aged 60–80 years
- **Sample Size:** 150
- **Sampling Method:** Simple random sampling
- **Study Duration:** December 2023 to March 2024
- **Data Collection Tool:** Pre-tested structured questionnaire with both closed and semi-open-ended questions
- **Data Collection Method:** Direct household interviews

Results:

Demographic profile

Distribution of the study participants according to their age, gender and religion: 61 percent of the geriatric population belong to the age group between 70-79 years. Moreover, 58 percent of study population are female. The majority of the study population (63%) identified as Hindu, followed by 36% who were Muslim. A small proportion (1%) belonged to other religious communities.

Table 1: Distribution of the study subjects according to their age

Age groups	Frequency	Percentage (%)
60 -69	58	38.66
70-79	92	61.33
Total	150	100

Table 2: Distribution of the study respondents by Gender

Category	Frequency	Percentage (%)
Male	63	42
Female	87	58
Total	150	100

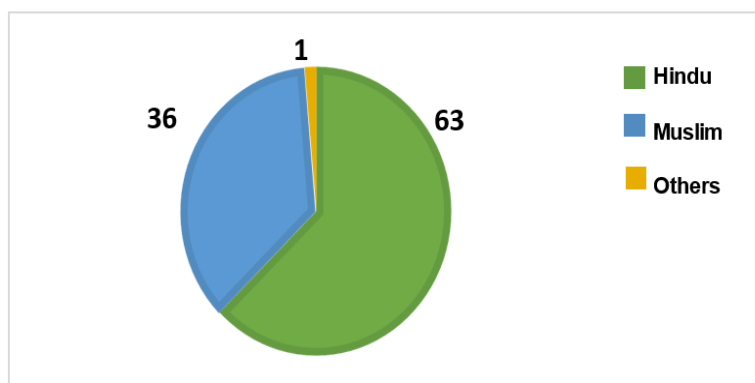


Figure 1: Pie diagram showing Religious Distribution of Study Participants (150)

Socioeconomic Status (Modified BG Prasad Scale, 2021): The majority of respondents (39%) belonged to the Upper Lower Class, followed by 34% in the Lower Class. Only one respondent belonged to the Upper Class.

Table 3: Socioeconomic Status of Study Participants Based on Per Capita Income (Modified B.G. Prasad Classification – May 2021)

Class	Socioeconomic Status	Per Capita Income (INR)	Frequency	Percentage (%)
I	Upper Class	₹ 7863 and above	1	<1
II	Upper Middle Class	₹ 3931 – ₹ 7862	15	10
III	Lower Middle Class	₹ 2359 – ₹ 3930	24	16
IV	Upper Lower Class	₹ 1179 – ₹ 2358	58	39
V	Lower Class	Less than ₹1179	52	34
	Total		150	100

Health-Related Problems among the Geriatric Population: The most common health issues include eye problems (42%) and hypertension/stroke (41.3%) were the most commonly reported morbidities among the elderly,

followed by cardiovascular issues (34%) and diabetes (30%). A significant proportion also reported joint problems and hearing difficulties, highlighting the high burden of chronic non-communicable diseases in this population.

Table 4: Common Health-Related Problems among the Geriatric Population

Health Problems	Frequency	Percentage (%)
Eye Problems	63	42.0
Hypertension / Stroke	62	41.3
Cardiovascular Problems	51	34.0
Diabetes	45	30.0
Joint Problems / Arthritis	45	30.0
Ear Problems	34	22.7
Others (e.g., skin, GI issues)	20	13.3
Total	150	100

Health-Seeking Behaviour and Use of Medications among Respondents: The majority of respondents (38%) sought care from tertiary health institutions, followed by 28.7% who visited secondary-level facilities. Notably, only 54% of the

elderly used prescribed medications, while 46% resorted to self-medication or unprescribed drugs, indicating a significant gap in rational drug use and accessibility to formal healthcare.

Table 5: Type of Health Facility Visited During Illness

Health Centre / Facility	Frequency	Percentage (%)
Sub-centre	15	10.0%
Primary Health Centre (PHC)	35	23.3%
Secondary Health Centre	43	28.7%
Tertiary Health Institution	57	38.0%
Total	150	100%

Table 6: Use of Prescribed Verses Non-Prescribed Medications

Medication Use	Frequency	Percentage (%)
Prescribed Medication (Yes)	81	54.0
Non-Prescribed Medication (No)	69	46.0
Total	150	100

Study participants Based on Joint Problems and Movement Impairment Due to Pain: About 42% of the elderly respondents reported impaired movement due to joint pain or arthritis, indicating a significant burden of musculoskeletal issues within

this age group. These findings highlight the need for better geriatric orthopedic care and pain management interventions in urban slum populations.

Table 7: Distribution of Respondents Based on Joint Problems and Movement Impairment Due to Pain

Movement Affected Due to Joint Pain	Frequency	Percentage (%)
Yes	63	42.0
No	87	58.0
Total	150	100

Discussion

This cross-sectional study was conducted among 150 elderly individuals residing in urban slums of Silchar, Cachar district, Assam, with the aim of assessing their health and morbidity patterns. The findings highlight a high prevalence of chronic diseases and functional impairments among the study population, consistent with other studies conducted in similar socio-demographic settings.

In our study, a majority of respondents were female (53.3%), and most belonged to the upper-lower (39%) and lower (34%) socioeconomic classes based on the Modified BG Prasad Classification [30]. These findings mirror those of Baruah et al. [4], who also found a majority of elderly participants residing in urban slums to belong to the upper-lower socioeconomic class. The marginally higher proportion of female participants is consistent with studies conducted by Visweswarara Rao et al. [22] and Gaurav & Kartikeyan [23], which also reported a predominance of elderly women, likely due to longer female life expectancy and gender-based demographic patterns in older age groups.

With regard to morbidity, hypertension (41.3%), visual impairment (42%), cardiovascular issues (34%), and joint problems/arthritis (30%) were among the most commonly reported health problems. These results are comparable with findings from Kabita Baruah et al. [4], where arthritis (70.4%) and visual impairment (58%) were the most prevalent. Similarly, JP Singh et al. [19] reported high rates of hypertension (34.75%), arthritis (32.25%), and diabetes (17.75%) in urban slum populations, reinforcing the pattern of multimorbidity among the elderly in low-income communities. In our study, 42% of elderly respondents experienced mobility limitations due to joint pain, which aligns with the burden of musculoskeletal problems noted in previous studies, including those by Praveen Kumar N. [20] and RB Gurav et al. [24]. Such conditions significantly affect the quality of life and independence in old age, further contributing to psychological distress.

Mental health issues were also notable in our study, with 28% of respondents reporting psychological distress. This finding highlights an often-neglected aspect of geriatric health in low-resource settings. Though few comparative studies explicitly address mental health in slum-dwelling elderly, this figure warrants further research and intervention [5,26,28]. Regarding health-seeking behavior, only 38% of respondents accessed tertiary health care, and a

notable portion (46%) either used over-the-counter or non-prescribed medications. This suboptimal healthcare utilization is consistent with the findings of Kabita Baruah et al. [4], where 29.5% of elderly engaged in self-medication and only 56.1% demonstrated appropriate health-seeking behavior. In our study, only 11% reported receiving regular health assessments by healthcare workers, suggesting gaps in outreach and geriatric follow-up services [9,10].

Overall, this study underscores the high burden of non-communicable diseases among elderly slum residents and the inadequate utilization of healthcare services. The findings reflect a pressing need for targeted health interventions, improved accessibility to public healthcare, and regular health check-ups for early diagnosis and management.

Conclusion

This study highlights a significant burden of chronic health conditions among the elderly population living in the urban slums of Cachar district. A majority of the respondents were suffering from non-communicable diseases such as hypertension (41.3%), visual impairment (42%), cardiovascular problems (34%), and joint-related issues (30%). Mobility limitations and psychological distress were also prevalent, further affecting their quality of life.

Despite the high morbidity rate, healthcare-seeking behavior was suboptimal. Only a small fraction of respondents accessed regular check-ups, and many relied on non-prescribed medications, indicating limited awareness and access to proper healthcare services. Socioeconomic constraints, inadequate outreach, and lack of health education likely contribute to these gaps.

The findings stress the urgent need for comprehensive geriatric health services, especially within vulnerable slum populations. Regular health screening, mobile medical units, health awareness programs, and community-based geriatric care initiatives could play a crucial role in improving the health outcomes and quality of life of the elderly.

There is a clear need for stronger policy focus and targeted interventions to address the unique health challenges of the ageing population in underprivileged urban settings.

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