



HEALTH-SEEKING BEHAVIOUR AND ITS DETERMINANTS AMONG ELDERLY INDIVIDUALS IN A RURAL AREA OF SONITPUR DISTRICT, ASSAM: A COMMUNITY-BASED CROSS-SECTIONAL STUDY

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Abstract

Background: India is undergoing demographic transition with a rising elderly population, particularly in rural areas where healthcare access is constrained. Understanding health-seeking behaviour (HSB) among elderly individuals is essential for strengthening geriatric care services. This study assessed the prevalence and determinants of HSB among elderly residents in rural Sonitpur district, Assam.

Material and Methods: A community-based cross-sectional study was conducted among 272 elderly individuals (≥ 60 years) selected through multistage random sampling. Data were collected using a pretested, semi-structured questionnaire. HSB was categorized as appropriate or inappropriate based on predefined criteria. Data were analysed using SPSS version 27. Chi-square test and multivariable logistic regression were used, and $p < 0.05$ was considered statistically significant.

Results: The mean age of participants was 68.9 years; 54% were females. Appropriate HSB was observed in 61.4% of participants, while 38.6% exhibited inappropriate HSB. Independent predictors of inappropriate HSB included illiteracy (aOR 1.92; 95% CI: 1.10–3.33), low socioeconomic status (aOR 2.47; 95% CI: 1.40–4.30), absence of health insurance (aOR 2.21; 95% CI: 1.25–3.92), distance to health facility > 3 km (aOR 1.74; 95% CI: 1.01–2.98), and lack of community health worker contact (aOR 1.89; 95% CI: 1.10–3.23).

Conclusion: A considerable proportion of elderly individuals demonstrated inappropriate HSB. Strengthening health literacy, improving financial protection, enhancing accessibility, and reinforcing community-based geriatric outreach services are essential to improve healthcare utilization among the rural elderly.

Keywords: Elderly; Health-seeking behaviour; Rural health; Accessibility; Community health; Assam

1. Introduction

India is undergoing a steady demographic transition marked by a growing elderly population, bringing new public health challenges into focus. In Sonitpur district, Assam, elderly individuals constitute nearly six percent of the total population, highlighting the increasing presence of ageing populations within rural communities.¹ Elderly persons in rural India often experience chronic morbidities alongside socioeconomic disadvantage, limited financial protection, and restricted access to healthcare, all of which substantially influence their interaction with health systems.^{2,3} Health-seeking behavior (HSB) among the elderly is determined by predisposing characteristics, enabling resources, and need-based factors, as outlined in Andersen's Behavioral Model of Health Services Use.^{4,5} With the continued demographic shift toward an ageing population, understanding these determinants becomes critical for designing responsive health strategies and strengthening primary care services.

Although national datasets and regional studies from different parts of India have reported on healthcare utilization patterns among older adults,^{5,6} there is comparatively limited evidence from Northeast India. This gap is particularly relevant because the region presents distinct contextual challenges, including geographical barriers, financial constraints, cultural influences, and variable accessibility to health facilities, which may significantly affect healthcare-seeking practices.^{6,7} Furthermore, disparities in literacy, socioeconomic status, health insurance coverage, and distance from healthcare facilities may contribute to delayed care, inappropriate care choices, or reliance on non-qualified providers.

In this context, generating region-specific evidence from rural Assam is essential to guide programme development, inform health policy, and support geriatric care initiatives. The present study was therefore undertaken to assess the prevalence of appropriate and inappropriate health-seeking behavior among elderly individuals in rural areas of Sonitpur district, Assam, and to identify sociodemographic and access-related determinants associated with such behavior. By contributing contextually grounded evidence, this study aims to strengthen the understanding of elderly healthcare utilization patterns and support efforts toward improving geriatric health services within rural primary healthcare frameworks.

2. Methods

A community-based cross-sectional study^{8,9} was conducted in twelve rural villages under the field practice area of Tezpur Medical College over a period of six months (1 March 2025 to 1 August 2025). The study population comprised elderly individuals aged 60 years and above^{1,10} who had been residing continuously in the study area for at least six months.

Inclusion and Exclusion Criteria

Elderly individuals (≥ 60 years) reporting at least one episode of illness or perceived health problem during the preceding six months^{12,13} were included in the study. Those who were severely ill, bedridden, hospitalized at the time of data collection, or had significant cognitive or psychiatric impairment were excluded^{11,14} to ensure reliability of responses.

Sample Size and Sampling Technique

The sample size was calculated using the formula $N = \frac{Z^2pq}{l^2}$ ¹⁶ assuming a prevalence of appropriate health-seeking behavior of 60 percent based on previous Indian studies^{5,9}. A 95 percent confidence level and an absolute allowable error of 6 percent^{6,9} were considered. After accounting for non-response, the final sample size was 272. A multistage random sampling technique^{17,18} was adopted; twelve villages were first selected by simple random sampling, followed by systematic random sampling of households, selecting one eligible elderly participant per household^{13,14}.

Data Collection Tool and Procedure

Data were collected using a pretested, semi-structured interview schedule^{6,9} that included sociodemographic characteristics, socioeconomic status assessed using the modified BG Prasad classification¹⁸, morbidity profile, healthcare accessibility, health insurance coverage, contact with

community health workers, and details of health-seeking behavior related to the most recent episode of illness.

Operational Definitions

Health-seeking behavior (HSB) was classified as appropriate when participants consulted a registered healthcare professional at a recognized health facility within an acceptable clinical time period⁴. Behavior was labelled inappropriate if medical consultation was postponed despite symptoms, self-medication was practiced, or care was obtained from unregistered or informal providers²¹.

Ethical Considerations The study was approved by the Institutional Ethics Committee of Tezpur Medical College, Assam. Written informed consent was obtained from all participants prior to data collection. Confidentiality and anonymity were strictly maintained throughout the study.

Statistical Analysis Data were entered in Microsoft Excel and analyzed using SPSS version 27. Categorical variables were expressed as frequencies and percentages. Associations between independent variables and health-seeking behavior were assessed using the chi-square test. Variables with $p < 0.20$ in bivariate analysis were included in a multivariable logistic regression model^{16,19} to identify independent predictors of inappropriate HSB. Adjusted odds ratios with 95 percent confidence intervals were reported, and $p < 0.05$ was considered statistically significant.

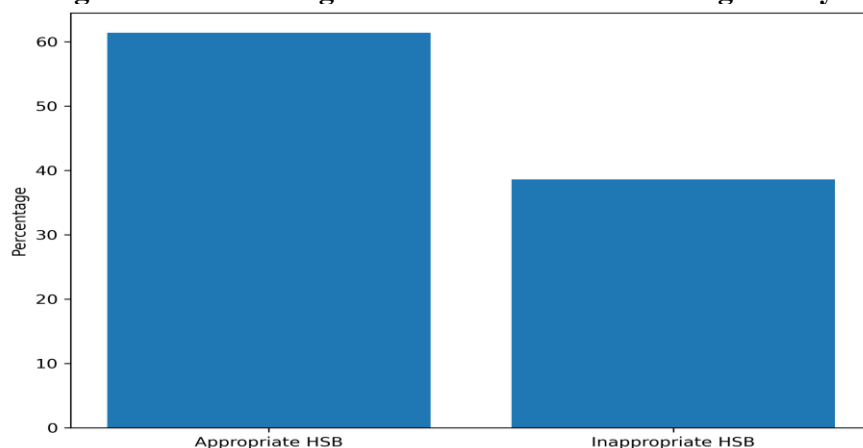
3. Results

Table 1. Integrated analysis of sociodemographic and access-related factors associated with inappropriate health-seeking behavior. (n = 272)

Variable	Category	Total n(%)	Inappropriate HSB n(%)	Adjusted OR	95% CI
Education	Illiterate	103 (37.9)	50 (48.5)	1.92	1.10–3.33
	Literate	169 (62.1)	55 (32.5)	1.00	Reference
Socioeconomic status	Low	114 (41.9)	60 (52.6)	2.47	1.40–4.30
	Middle / High	158 (58.1)	45 (28.5)	1.00	Reference
Health insurance	Absent	193 (71.0)	84 (43.5)	2.21	1.25–3.92
	Present	79 (29.0)	21 (26.6)	1.00	Reference
Distance to health facility	>3 km	106 (39.0)	52 (49.0)	1.74	1.01–2.98
	≤3 km	166 (61.0)	53 (31.3)	1.00	Reference
Community health worker contact	No	144 (52.9)	66 (45.8)	1.89	1.10–3.23
	Yes	128 (47.1)	39 (32.0)	1.00	Reference

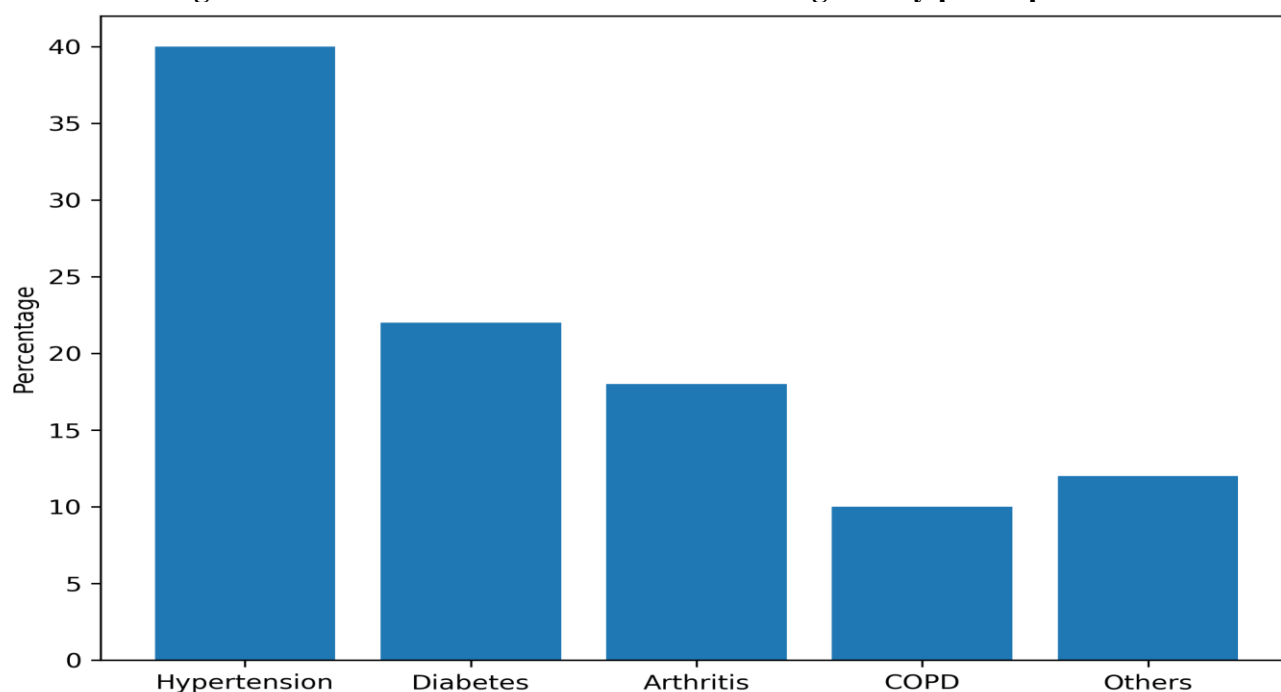
In the above table, adjusted odds ratios were obtained using multivariable logistic regression analysis. Variables with $p < 0.20$ in bivariate analysis were included in the final model. Reference category indicated as adjusted OR = 1.00.

Fig.1. Health-seeking behavior distribution among elderly



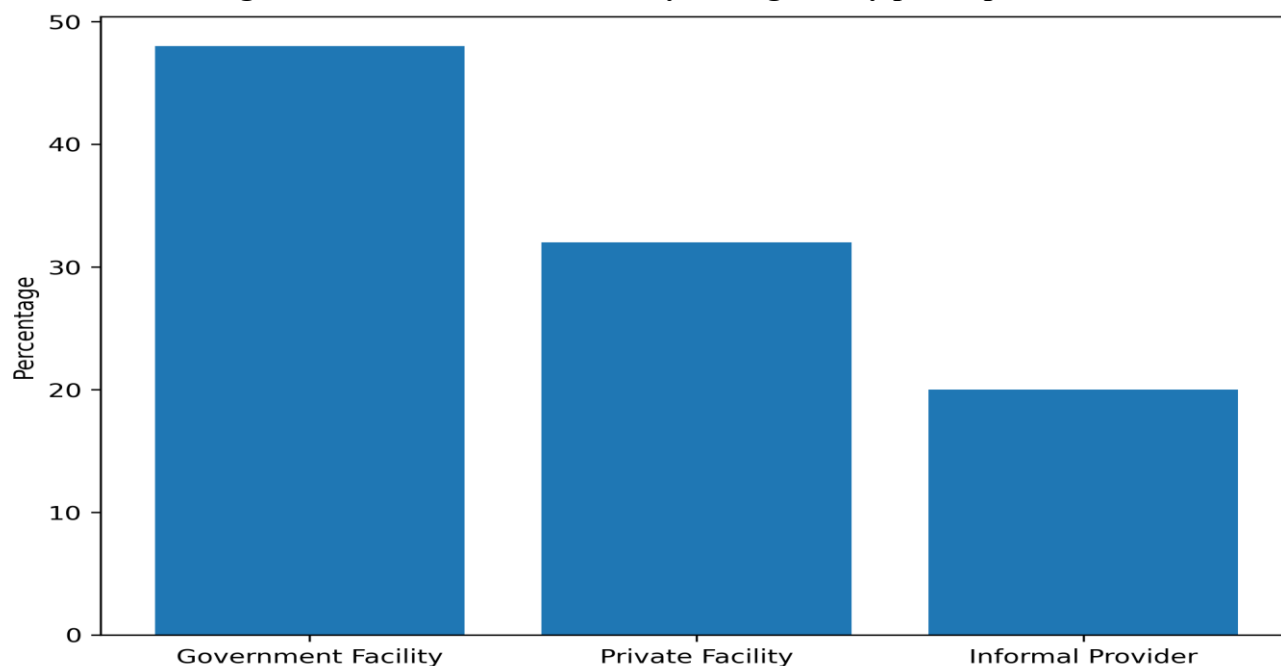
In the above graph, health-seeking behavior was categorized using predefined operational criteria. Appropriate health-seeking behavior refers to consultation with a qualified healthcare provider within 48 hours of onset of illness, whereas inappropriate health-seeking behavior includes delayed care seeking, self-medication, or consultation with non-qualified providers.

Fig.2. Distribution of chronic morbidities among elderly participants



In the above graph, participants could report more than one chronic condition; therefore, percentages do not total 100 percent

Fig.3. Preferred healthcare facility among elderly participants



In the above graph, facility preference was recorded based on the first point of contact during the most recent episode of illness.

The mean age was 68.9 years, among 272 participants, with females comprising 54%. Illiteracy was observed in 37.9%, and only 29% possessed any form of health insurance. 61.4% of participants

demonstrated appropriate health-seeking behavior (HSB). Predictors for inappropriate HSB included illiteracy (adjusted odds ratio [aOR] 1.92), low socioeconomic status (aOR 2.47), lack of insurance (aOR 2.21), distance exceeding 3 km (aOR 1.74), and absence of contact with a community health worker (aOR 1.89).

4. Discussion

The present study explores the determinants of HSB among elderly residents in rural areas of Sonitpur district, Assam. The findings exhibit significant gaps in timely and appropriate use of health care services, with approximately 39 percent of the respondents exhibiting inappropriate HSB. This corroborates previous Indian studies that consistently reported poor care-seeking behavior among elderly people, especially in rural and socioeconomically deprived groups. Studies from Uttar Pradesh, Tamil Nadu, Kerala, and Assam also report similar trends, suggesting that structural, financial, and social factors continue to impede access to care for elderly people in diverse contexts.^{5,7,8,9} Low literacy emerged as a significant predictor of inappropriate HSB in the present study. Illiteracy has been widely recognized as a barrier to health system engagement, as it limits an individual's ability to recognize symptoms, interpret health messages, navigate healthcare pathways, and understand the benefits of preventive care. Research in rural Tamil Nadu and Karnataka has similarly shown that low education correlates strongly with delays in seeking medical assistance, lower awareness of government schemes, and higher reliance on non-qualified providers.^{10,11}

Socioeconomic status (SES) was another strong determinant. Participants from low-income households were more than twice as likely to demonstrate inappropriate HSB. This finding is consistent with national analyses using Longitudinal Ageing Study in India (LASI) data, which show that financial constraints, out-of-pocket expenditure, and inconsistent income streams significantly reduce healthcare utilization among elderly individuals. In rural Assam, where poverty remains above the national average, the economic burden of healthcare is a central determinant.^{5,6}

The presence or absence of health insurance greatly affects outcomes. Only 29 percent of respondents reported having insurance, a figure consistent with national trends. The findings reveal that health insurance schemes such as PM-JAY have the potential to reduce financial burdens but awareness and enrollment remain incomplete.^{12,13}

Another significant determinant is the distance to health facilities; bad roads, inadequate transportation facilities, and difficult terrain enhance access barriers in Assam and the other northeastern states.¹⁴

Engagement of CHWs was an important enabling factor. No contact with CHWs significantly raised the odds of inappropriate HSB, as correctly noted from studies in Assam, Bihar, and Madhya Pradesh that reported CHWs facilitate adherence and timely care-seeking.^{7,15}

Taken together, these observations are consistent with the conceptual framework proposed in Andersen's Behavioral Model, which argues that enabling factors, such as access, affordability, and social support, are likely to influence utilization more than need factors alone.⁴

5. Conclusion

The health-seeking behavior among the elderly in rural Sonitpur continues to be below optimum. Advancing health literacy, expanding insurance coverage, strengthening health-worker outreach, and facilitating physical access to primary health-care services will go a long way towards substantially improving utilization patterns and health outcomes among the elderly.

6. Limitations

Because of the cross-sectional nature of the study, causal relationships could not be established. Self-reported data may bring recall bias into the analysis. Bedridden elderly people were

underrepresented. It is for this reason that the study findings should not be generalized to all districts within Assam or the wider Northeast India region.

7. Recommendations

Strategies proposed include strengthening health-worker-led geriatric outreach; intensifying efforts to enroll patients in health insurance; introducing mobile health clinics across more locations; creating elderly support networks; promoting better transportation access; providing culturally appropriate health literacy materials; and incorporating routine geriatric assessments into primary health-care visits.^{4,15,21}

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