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Experiences of Elderly Living with Noncommunicable Diseases in Utilizing Health Services in Myanmar During the COVID-19 Pandemic

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Abstract

The COVID-19 pandemic and armed conflicts in Myanmar have intensified the challenges in accessing and utilizing health services, particularly for noncommunicable diseases (NCDs) among older adults. This qualitative study explored the experiences of the elderly with NCDs regarding health service accessibility and utilization in secure areas with fully operational health facilities by conducting in-depth interviews with 20 eligible older adults in Myanmar; data were analyzed using content analysis. Four key themes emerged: NCD service utilization patterns; unmet needs; preferences and hesitancy toward NCD services; and disparities, barriers, and opportunities. The findings revealed widespread underutilization of NCD services due to several factors, including geographic inaccessibility, lack of telemedicine, absence of nearby primary health care, inaccessibility of preferred specialists, quality of care issues, high costs, inadequate communication by providers, and insufficient support for healthcare appointments. In conclusion, strengthening elderly-friendly NCD services in Myanmar requires improving accessibility, affordability, care quality, and communication to reduce unmet needs and support healthy aging.

Keywords: elderly, health services utilization, Myanmar, noncommunicable diseases

Introduction

Since 1990, noncommunicable diseases (NCDs) have become the leading cause of death worldwide, accounting for 75% of all deaths in 2021.¹ In Myanmar, NCDs caused 290,000 deaths in 2020, with mortality disproportionately affecting older adults—75.52% of total deaths among those aged ≥ 70 years.² With a growing aging population, Myanmar urgently requires older people-centered NCD strategies.³

The World Health Organization's Package of Essential NCDs Interventions (PEN) aims to expand the NCDs service coverage in primary health care (PHC) settings in low-income countries, including Myanmar, yet progress remains slow.⁴ According to 2014 data, life expectancy at 60 years in Myanmar was 16.9 years; however, healthy life expectancy is only 12 years, leaving nearly 5 years in poor health.⁵ Despite nationwide PEN implementation since 2017, Myanmar has missed key NCDs targets,⁴ with hypertension (50%) and diabetes mellitus (18%) prevalence remaining high until 2023.^{6,7} Healthcare access for older adults is inequitable, exacerbated by systemic barriers.⁷⁻⁹ In 2023, HelpAge Myanmar reported that NCD service access was as low as 7% in Southern Shan State, compared to 60% in Yangon.⁷ During political instability, 60% of older women and 52% of older men faced healthcare disruptions in 2023.^{10,11}

The COVID-19 pandemic further strained NCD care, delaying screening and treatment.¹² Myanmar's health system has adapted to telemedicine and awareness campaigns;¹³ however, political instability has disrupted routine care. In 2023, 52% of older adults required screenings, while 32% required NCD services.¹⁰ Despite global research on NCDs and COVID-19, the lived experiences of older adults in Myanmar remain scarce, particularly regarding unmet needs during the dual pandemic-political crisis. This study aimed to explore the experiences of the elderly in utilizing NCDs-related health

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services in Myanmar during the COVID-19 pandemic, focusing on demand-side barriers to access. Its key contribution lied in capturing the lived experiences of elderly individuals during a dual crisis, pandemic, and political instability, an area not sufficiently addressed in existing research. Although the pandemic has officially ended, its long-term effects on health systems, especially in fragile contexts such as Myanmar, persist and continue to impact older populations disproportionately. This study provided timely, context-specific insights to inform equitable and resilient health service strategies for current recovery efforts and future crises; its relevance extends beyond Myanmar, offering lessons for health system planning in other low-resource and politically unstable settings.

Method

This qualitative study explored the experiences of the elderly with NCDs health services utilization in Myanmar during the COVID-19 pandemic, focusing on accessibility, utilization patterns, and support/barriers. Following the protocol and the lists of patients with NCDs provided by the PHC staff and local authorities, face-to-face in-depth interviews were conducted with 20 participants aged ≥60 with NCDs (cardiovascular disease, diabetes mellitus, cancer, or chronic respiratory conditions), who were identified as key informants (Table 1), from urban (Yangon) and rural (Zigon Township) areas, between February and December 2023. Purposive sampling ensured diversity in age, sex, and independence levels based on the proportion of the aging population, urbanization, rural population density, health facilities operationalization, and local security context.

Table 1. Demographics of Elderly with Noncommunicable Diseases (n = 20)

Code	Location	Age	Sex	Education level	Marital status	Occupation	Living situation
E-01	Urban	62	Female	Senior High School	Married	Factory worker	With family
E-02	Rural	78	Male	Junior High School	Married	Farmer	With family
E-03	Rural	90	Female	Elementary School	Married	Dependent	With son
E-04	Rural	62	Male	Higher Education	Married	Retired school teacher	With family
E-05	Rural	62	Male	Higher Education	Married	Farmer	With family
E-06	Rural	73	Female	Elementary School	Married	Dependent/Farmer	With family
E-07	Rural	71	Female	Elementary School	Married	Dependent	With family
E-08	Rural	68	Male	Elementary School	Married	Farmer	With family
E-09	Rural	82	Male	Elementary School	Married	Farmer	With family
E-10	Urban	65	Male	Higher Education	Married	Company staff	With family
E-11	Urban	73	Male	Higher Education	Married	Retired lecturer	With family
E-12	Rural	62	Female	Senior High School	Married	Farmer	With family
E-13	Urban	82	Female	Higher Education	Married	Retired teacher	With family
E-14	Urban	63	Male	Higher Education	Married	Business owner	With family
E-15	Rural	75	Male	Junior High School	Married	Farmer	With family
E-16	Urban	64	Male	Higher Education	Married	Company staff	With family
E-17	Urban	65	Female	Higher Education	Single	Retired teacher	Alone
E-18	Urban	85	Female	Higher Education	Married	Dependent	With family
E-19	Urban	75	Female	Uneducated	Married	Factory worker	With spouse
E-20	Urban	72	Female	Higher Education	Married	Business owner	With family

Inclusion criteria were diagnosed with NCDs for ≥1 year, residing in the study areas since March 2020, and able to communicate in Myanmar. The exclusion criteria included severe illness, cognitive impairment, or language barriers. Interviews (45–60 minutes) were conducted face-to-face at the participants’ homes, covering experiences from 2022 to 2023. Participants were asked about their unmet healthcare needs, “What was the main reason for not receiving treatment/services at that time?” and reasons for non-utilization, “Could not afford the treatment cost” / “Could not afford the travel cost” / “Long waiting time” / “Difficulty traveling or living far away from facilities”/ “No time to get treatment”/ “Do not trust or feel confident with facilities or providers”/ “Did not know where to go to receive treatment”/ “No one to accompany to health facilities”/ “Other reasons for outpatient or inpatient services” / “Provider cannot provide proper service.” Unmet healthcare need, defined as people who require health services but do not use them for whatever reasons, is a key indicator for monitoring access to health services as it reflects the gaps in access to care, such as availability, geographical accessibility, financial accessibility, and poor quality of care that people do not trust. After interviewing 20 key informants, data were collected. Transcripts (translated from Myanmar to English) were manually coded and thematically analyzed. Key themes were derived from the participants’ narratives and presented verbatim and in *italics*. Ethical approval and informed consent were obtained from the participants.

Results

A total of 20 elderly individuals living in urban and rural areas of the selected study sites shared their experiences with the utilization of NCD health services during 2023. Table 2 reveals the respondents' general characteristics. The age range was from 62 to 90 years, with the majority in their 60s and 70s, and an average age of approximately 70.7 years. The sex was balanced, with 50% male and 50% female participants. The educational level comprised 30% completed elementary school, 20% completed junior and senior high schools, and 50% completed higher education. This distribution highlighted a varied educational landscape, with several individuals having had access to at least some form of formal education. However, a notable number had relatively low levels of education, particularly among those in rural areas. Most respondents (95%) were married, and 90% lived with family or a spouse, reflecting typical family-oriented living arrangements for older adults. Overall, the sociodemographic data suggested a largely stable group in terms of marital status and living conditions, with varying levels of educational attainment.

Table 2. Characteristics of the Elderly with Noncommunicable Diseases (n = 20)

Characteristic	Category	Variable	
		n	%
Age (years)	60-69	9	45.0
	70-79	7	35.0
	≥80	4	20.0
Sex	Female	10	50.0
	Male	10	50.0
Marital status	Single	1	5.0
	Married	19	95.0
Type of Noncommunicable Diseases	Hypertension	6	30.0
	Diabetes Mellitus	3	15.0
	Hypertension + other comorbid diseases (BPH, gastritis, hyperlipidemia, IHD, stroke, RA, etc.)	10	50.0
	Diabetes Mellitus + Hyperlipidemia	1	5.0
Type of residency	Urban	10	50.0
	Rural	10	50.0
Education Level	≤Elementary School	6	30.0
	Junior and Senior High School	4	20.0
	Higher Education	10	50.0
Received social pension/health insurance/health benefit (FOC service for retired civil servants at public health facilities)	Yes	4	20.0
	No	16	80.0
Previous occupation	A dependent who did not work to earn money	3	15.0
	Agriculture	7	35.0
	Retired civil servant (teacher, lecturer, etc.)	4	20.0
	Business owner	2	10.0
	Company employee	4	20.0
Health facility	Primary health care (public/private)	7	35.0
	Secondary health center (public/private)	5	25.0
	Tertiary health center (public/private)	8	40.0

Notes: BPH = benign prostate hyperplasia, IHD = ischemic heart disease, RA = rheumatic arthritis, FOC = free of charge

The qualitative interview explored the pattern of NCDs health services utilization, the unmet need for NCDs health services utilization among the aging population, barriers to accessing NCDs health services, and opportunities to utilize NCD health services among the elderly.

Theme 1: Pattern of Health Services Utilization Among the Elderly with NCDs

The findings revealed a complex pattern of health services utilization among the elderly population with NCDs, characterized by the types and places of service utilization. Those who used the services when they needed them and those who experienced unmet needs for utilization. Six out of 20 key informants reported utilizing various NCD health services, including general practitioner (GP) clinics, philanthropic clinics, and PHCs. In addition, curative care, follow-up care, inpatient care, blood pressure (BP) measurement, blood glucose checks, medical check-ups, nurse aid services, and outpatient care at public and private health facilities, and specialist clinics or tertiary hospitals, were commonly accessed.

The various ways in which the elderly managed their NCDs outside formal healthcare settings were also examined. The informal healthcare system refers to services provided by unskilled or unqualified persons for the diagnosis and treatment of NCDs in the community. Some informants (25%) indicated engaging in self-medication practices, including the use of western medicine, traditional remedies, over-the-counter drugs from pharmacies, and medications prescribed by peers. The preference for western medicine was evident in the responses, with patients preferring medications prescribed by doctors because of their perceived effectiveness and clear instructions. Telemedicine emerged as an important service during the pandemic, with some participants opting for remote consultations when face-to-face visits were not possible.

Conversely, some reasons affecting the decision to utilize NCD health services were captured. The biggest constraint to the utilization of health services among the elderly was financial hardship, especially for those lacking insurance or savings. This was compounded by dissatisfaction with service quality, particularly negative staff behavior, and a widespread reliance on self-medication through over-the-counter drugs, traditional remedies, or advice from peers, which further discouraged formal healthcare use. These practices, while providing a sense of autonomy, often led to suboptimal NCD management. Although traditional medicine was present in the community, it was less commonly used, and most informants (75%) did not express a preference for it.

Additionally, some elderly informants (20%) reported hesitancy to use health services owing to a lack of perceived need or fear of burdening their families. Nearly one-third of the informants (30%) expressed that family members, particularly children or spouses, heavily influence their health service decisions. For instance, elderly individuals often rely on younger family members to help navigate healthcare systems, schedule appointments, or provide emotional support during visits. This reliance reflected the dependence of several elderly on family for assistance because of physical limitations or health conditions, highlighting the importance of social structures in managing health. Elderly individuals with NCDs reported opting out of health services owing to perceived good health, financial constraints, dissatisfaction with staff behavior, and reliance on self-medication. Furthermore, participants acknowledged that telemedicine lacked the comprehensive care offered in person and was limited by factors such as poor internet connectivity.

Both positive and negative experiences with NCDs health services utilization were discussed in the in-depth interview. The positive aspects included having adequate health literacy, good health, effective NCDs management, access to necessary equipment and medication, and the availability of public facilities. In contrast, negative experiences were characterized by issues such as the quality of services, financial barriers, and hesitancy to use the services, as illustrated by the following quotes that present the experiences of the elderly respondents.

"I did not use the health service after December 2022 because I feel healthy. I never use health services at a public hospital where there is a long waiting time, poor staff behavior, crowded places, etc. I do a blood glucose self-check at home, and the result is normal." (E-20)

"I have not utilized the health service provided by medical doctor or trained basic health staff because of no money... I need money to get treated at the clinic with the doctor. We rarely use outpatient care treatment at a public hospital except for hospitalization... As I am running out of money, I miss the follow-up visit. But, I buy the medicine at the pharmacy by showing the used medicine to take it regularly." (E-06).

Theme 2: Unmet Need for NCDs Health Service Utilization

Despite the availability of healthcare services, several barriers hindered the elderly from fully utilizing NCD care when they needed it, leading to unmet needs. Limited health literacy among certain respondents affected their ability to navigate the healthcare system and make informed treatment decisions. Some elderly informants (30%) relied heavily on family members, particularly children or spouses, to navigate healthcare systems, schedule appointments, and provide emotional support during visits. This reliance highlighted the elderly's dependence on social structures for managing their health, often because of physical limitations or health conditions.

Additionally, some informants (25%) reported opting out of formal health services owing to perceived good health, financial constraints, dissatisfaction with staff behavior, or reliance on self-medication. Although traditional medicine was available in the community, it was less commonly used, and most participants did not express a preference for it, indicating a gap in the culturally aligned healthcare options. The limitations of telemedicine further underscored unmet needs, as participants felt that it could not fully replace in-person care. Financial constraints were a major deterrent,

particularly for those who could not afford consultations, diagnostic tests, or medications. Dissatisfaction with healthcare providers, including negative experiences with staff attitudes, service quality, and a lack of trust in available medical services, discouraged some elderly individuals from seeking care. These findings can fill the gaps in care and hinder effective disease management.

Moreover, some key informants (20%) expressed hesitancy toward seeking medical care, particularly in the context of the COVID-19 pandemic. Some of them voiced concerns about visiting clinics or hospitals due to fears of contracting infections, which led them to seek alternative methods such as telemedicine or avoiding visits altogether. However, four key informants still sought care when necessary, especially when services were remotely accessible. There were concerns about the adequacy of medical explanations from healthcare providers, which sometimes led to uncertainty about treatment plans, mentioning instances where doctors failed to adequately explain procedures, resulting in confusion and reluctance to engage with health services.

Adherence to prescribed treatments varied widely among the participants. Some key informants (30%) diligently followed their treatment regimens, recognizing the importance of managing their NCDs. However, others expressed reluctance or fear of side effects, leading them to avoid medications. For instance, a few key informants feared that antihypertensive medications might worsen their condition or cause other health issues. The lack of proper health education, combined with informal advice from peers and family members, often resulted in suboptimal management of their conditions.

"I am hesitant to use health services because of no money, and I am afraid of being diagnosed with an incurable disease." (E-07)

"I fear using NCD services because I am afraid of being scolded by the health provider." (E-08)

"There is no explanation before the procedure in the GP clinic." (E-17)

Theme 3: Opportunity for Utilization of NCD Health Services

Despite the existing challenges, several opportunities exist to facilitate the utilization of health services among the elderly population with NCDs in Myanmar. One key opportunity was the existence of health insurance schemes, health benefit packages for retired civil servants, and elderly social pensions that offer some degree of financial support, reducing the direct burden of healthcare expenses. Community and family support have emerged as a key factor in healthcare for the elderly. Several participants expressed that they relied on community-based health services, such as philanthropic clinics, where costs were lower or subsidized.

Furthermore, social support networks were crucial for elderly individuals who faced mobility challenges, as family members often accompanied them to clinics. However, home care services were identified as a gap in service provision, especially for those unable to visit clinics regularly because of physical limitations. Participants also highlighted that several elderly individuals in their communities, especially those without sufficient financial means, often relied on self-medication or traditional medicine before seeking professional care.

"My wife always accompanies me when I go to the clinic. If needed, I can request help from my neighbors." (E-05)

"My husband accompanies me when I go to the clinic. My son sends money for us." (E-07)

Health education and behavioral change interventions were another important opportunity. Half of the participants reported feeling healthy, indicating that these individuals may benefit from targeted interventions to maintain their health status and prevent the progression of NCDs. In contrast, most respondents (80%) were experiencing hypertension and other comorbid diseases. The elderly respondents' knowledge, attitude, and practice of NCDs risk factors, such as alcohol consumption, cigarette smoking, betel chewing, physical inactivity, and eating an unhealthy diet, were referred to as risk behavior of NCDs. In terms of NCDs risk behavior, a small subset of older adults with NCDs (three individuals) adhered to a healthy lifestyle, engaging in regular exercise, preparing meals at home, incorporating vegetables into every meal, and avoiding risk factors such as adding flavors such as monosodium glutamate (MSG) and chicken seasoning powder, betel chewing, alcohol consumption, and cigarette smoking. Conversely, the remaining 17 elderly individuals

exhibited at least one risk factor associated with NCDs; these risk factors included cigarette smoking, betel chewing, alcohol consumption, excessive intake of salty foods, and unrestricted use of MSG or chicken seasoning powder. Furthermore, the availability of private health facilities, which some participants preferred for their convenience and personalized care, presents an opportunity to explore public–private partnerships to improve access to quality NCD care.

“I eat chicken powder and MSG daily in every meal. Without them, the curry becomes tasteless. Here, almost everyone chews betel. We add licorice to betel. I do not drink alcohol. Although I do not do any specific physical activity, I walk when I go to the paddy fields.” (E-02)

“I do not smoke or drink alcohol. I chew betel, which is added with licorice. I do not have time for physical exercise. In the factory, I sit for a long time... As my main dish is rice, I eat a lot of rice with our Burmese cuisine vegetables eaten with ngapi yay, which is a paste made by fermented salted fish.” (E-19)

Theme 4: Barriers to NCD Health Services Utilization

Despite several opportunities, certain barriers impeded the effective utilization of health services among the elderly with NCDs. The financial burden associated with NCD treatment was one of the most significant barriers. Four respondents noted that health insurance, health benefit packages at public health facilities for retired civil servants, and elderly social pensions are available; however, the coverage is often insufficient to cover the full costs of consultations, medications, and specialized treatments. Consequently, many elderly individuals resort to significant out-of-pocket payments, making healthcare unaffordable and pushing them toward self-medication or over-the-counter drugs as alternative treatments.

Physical mobility limitations and transportation difficulties further restricted access to NCD services, especially for those living alone or relying on others for assistance in traveling to health facilities. Public transportation may be inadequate or inconvenient, particularly in rural areas, where health facilities are far from residential communities, and in urban areas, where elevators are lacking in high-level buildings. Another major barrier was the quality of healthcare services. Long waiting times at public hospitals, perceived inadequacies in patient-provider communication, and a sense of powerlessness in the face of medical uncertainty were other major frustrations, discouraging many from utilizing public health facilities despite their lower cost.

Participants often preferred private health facilities for their convenience and personalized care, even though this preference came at a higher financial cost. However, the high cost of routine tests and specialist consultations at private facilities remained a deterrent for some patients, leading them to forego the recommended procedures. Additionally, inadequate explanations from health providers about diagnoses, treatment options, and medication regimens contributed to feelings of confusion and reluctance to seek care. The availability of essential health services also poses a challenge. Local health facilities lacked the necessary diagnostic tools or medications as well as specialists, forcing elderly individuals to seek care elsewhere or decline treatment. Some patients resort to consulting unqualified practitioners or rely on self-medication due to the accessibility of formal healthcare constraints, further worsening their health risks.

“Although I have insurance, I cannot always afford the healthcare cost because the total reimbursed amount may cover only a couple of visits.” (E-16)

“There is no clinic/health facility in my village. It is located in another village (6 miles away). Money is required to go to the clinic. I cannot go to the clinic without money.” (E-04)

“As I live on the upper floor of an apartment, it is difficult for me to climb up/down when I go to utilize the health service. Nobody can carry me... For the home service it is too expensive. I cannot always afford it.” (E-13)

Additionally, cultural factors, such as the reliance on traditional medicine and fear of medical procedures, influenced healthcare choices. A total of 16 older people with NCDs shared their religious permission to receive NCD healthcare, their perception of spiritual healers, and their experiences of suffering from disease because of past karma.

“In my village, we mostly get treated by a quack and take traditional medicine. There is no religious

restriction on using health services. Some get treated by traditional healers.” (E-08)

“In my village, the monk provides treatment as a traditional healer, letting us drink the holy water that can cure all diseases. The majority of the villagers get treated by a quack. Unless we recover, we go to the clinic to receive treatment from a doctor. We regard hypertension and diabetes mellitus as old-age diseases because almost all the elders in my village have these diseases. There is no need for special care. Some suffer from cancer, which might be due to bad luck.” (E-15)

Discussion

The findings of this study offer valuable insights into the patterns and barriers associated with health service utilization among the elderly with NCDs in urban and rural areas of Myanmar. This study revealed the complex interplay of the elderly's experiences in NCDs healthcare access and use, particularly in the context of geographic disparities, financial limitations, and the ongoing impact of the COVID-19 pandemic. The quantitative part of this study¹⁴ demonstrated that 53.3% of the elderly with NCDs use health services, and 64.8% reported unmet needs, reflecting persistent gaps in Myanmar's PEN program implementation. Common reasons for not utilizing NCD health services included financial constraints, the belief that their health condition was not serious, reliance on self-treatment, and dissatisfaction with the behavior of the healthcare provider.

Participants also navigated a mixed healthcare system, primarily using outpatient services (43.4%) at GP clinics (14.4%) and private facilities (13.8%), mirroring low- and middle-income countries' trends where cost and accessibility dictate care-seeking.^{14,15} The underutilization of PHC (13.8%) owing to perceived poor service quality aligns with studies from Vietnam,^{14,16} suggesting structural deficiencies in Myanmar's first-level health facilities' system. Notably, telemedicine adoption remained low despite pandemic needs, constrained by digital divides, a finding consistent with global reports on elderly telehealth barriers.^{17,18} Furthermore, unmet needs for NCD health services remain a critical issue. A significant proportion of respondents (64.8%) reported unmet needs for NCD health services, whereas 35.2% reported no unmet needs.^{14,18} These results highlighted a substantial gap in NCDs service provision, with most elderly experienced unmet healthcare needs. Addressing these unmet needs and improving access to diverse NCD services, particularly in underserved locations, could enhance healthcare outcomes for the elderly.

Financial constraints emerged as the predominant obstacle, with consultations costing the uninsured elderly their monthly income. This condition intensified health inequities, as documented in other low- and middle-income countries.¹⁹ Geographic barriers disproportionately affected rural residents, who faced 2–4-hour travel times versus urban dwellers' 30-minute access. Structural challenges such as medicine stockouts and long wait times compounded these issues, creating care-avoidant behaviors similar to those observed in Greece and South Korea.²⁰⁻²² Family support played dual roles: while the majority relied on relatives for care coordination, the absence of support created care gaps.²³ Moreover, dependency can lead to gaps in care when family support is unavailable or insufficient. This study's findings aligned with previous research emphasizing the importance of family involvement in healthcare decision-making, particularly in collectivist societies.²⁴ Traditional medicine use and spiritual health beliefs influenced treatment adherence, underscoring the requirement for culturally sensitive interventions as proposed by the Organisation for Economic Co-operation and Development.²⁵ The integration of traditional and modern healthcare approaches may be a key strategy to improve healthcare access and outcomes in rural areas.²⁶ Pandemic-related fears and provider distrust further reduced utilization, emphasizing the communication gaps identified in rural health studies.²⁷

In terms of NCDs health behaviors for preventive measures, some participants engaged in activities to reduce the risk factors, such as walking and cutting down on sweet foods and MSG. Regular BP measurements at home were also noted. Conversely, most participants exhibited risk factors such as physical inactivity, poor dietary habits, and flavor use, highlighting a significant gap in health education regarding NCDs prevention and management. The lack of health education, combined with informal advice from peers and family members, may contribute to suboptimal health behaviors and poorly managed conditions.²⁸ It also emphasizes the requirement for community-based health promotion programs tailored to the elderly, which could improve awareness of NCD risks and encourage healthier lifestyles.²⁹

This study offered important contributions by providing firsthand insights into the experiences of the elderly with NCDs in utilizing health services during the COVID-19 pandemic in Myanmar. This context remains underexplored in the existing literature. One of this study's key strengths lies in its focus on urban and rural settings, enabling a more nuanced understanding of geographic disparities in service utilization. Furthermore, this study adds value to global discussions

on health system resilience and equity in fragile contexts by capturing perspectives during an overlapping health and political crisis.

However, several limitations should be acknowledged. The use of purposive sampling may limit the generalizability of the findings, as participants were selected based on specific criteria rather than randomly. This study only included the elderly with NCDs who were independent in their activities of daily living, potentially excluding the most vulnerable and dependent elderly populations who may face even greater barriers to accessing care. Additionally, the reliance on self-reported data regarding health service utilization during 2022–2023 introduces the possibility of recall bias, which could affect the accuracy of reported experiences and behaviors.

To address these limitations, future studies should consider incorporating a more diverse sample, including dependent and homebound elderly individuals, to better capture the full spectrum of experiences. Using mixed-methods approaches and triangulating self-reported data with medical records or caregiver interviews may help minimize recall bias and improve data reliability. Further research is recommended to explore the long-term effects of pandemic-related disruptions on chronic disease management and to assess the effectiveness of interventions aimed at improving equitable access to NCD services across Myanmar. Exploring the role of telemedicine and its potential in overcoming geographic and financial barriers, as well as integrating traditional medicine with formal healthcare systems, could provide new insights.

Conclusion

This study reveals that elderly individuals in Myanmar navigate a complex mix of formal and informal healthcare services to manage NCDs, with self-medication being common because of barriers such as financial hardship, poor service quality, and limited access. Key strategies to improve health service utilization for the elderly with NCDs include developing age-friendly programs, deploying mobile health teams, strengthening community health workers, and integrating digital tools for outreach and follow-up. Empowering women and engaging community leaders can also enhance health-seeking behavior. Tailored, community-based health promotion is essential for improving health literacy and supporting healthier aging.

Abbreviations

NCDs: Noncommunicable diseases; PEN: Package of Essential NCDs Interventions; PHC: primary health care; GP: general practitioner; BP: blood pressure; MSG: Monosodium glutamate.

Ethics Approval and Consent to Participate

This study was approved by Documentary Proof of Ethical Clearance from the Research Ethical Committee of the Faculty of Public Health, Mahidol University (COA. No. MUPH 2023-145). All respondents provided written informed consent prior to data collection, having been informed about the voluntary nature of their participation and the confidentiality of their information.

Competing Interest

The authors have no conflicts of interest to declare.

Availability of Data and Materials

This paper is a part of the Doctor of Public Health (Global Health Major) dissertation. Data and materials used in this research may be obtained from the corresponding author upon reasonable request.

Authors' Contribution

NEC, KA, NC, and AB contributed to the design and implementation of the research and analysis of the results. NEC and KA verified the study instruments, analytical methods, and data interpretation; they were also responsible for the preparation of the manuscript. All authors discussed the results and contributed to the final manuscript, which was approved by all authors.

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