



CULTURAL FACTORS INFLUENCING HEALTH CARE PRACTICES AMONG OLDER ADULTS IN SELECTED COMMUNES OF THAI NGUYEN PROVINCE, VIETNAM

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ABSTRACT

Background: Population ageing is accelerating rapidly in Viet Nam, resulting in increasing healthcare needs among older adults. Healthcare behaviors in this population are shaped not only by health status but also by cultural and social factors, particularly in rural settings. However, empirical evidence on the influence of cultural determinants on healthcare behaviors among older adults in Viet Nam remains limited. **Objectives:** This study aimed to (1) describe healthcare behaviors among older adults in selected rural communes of Thai Nguyen Province and (2) examine the association between cultural and health-related factors and these behaviors. **Methods:** A cross-sectional descriptive study was conducted among 528 adults aged 60 years and older residing in Phu Binh District, Thai Nguyen Province, from December 2024 to December 2025. Data were collected through face-to-face interviews using a structured questionnaire. Chi-square tests were used to assess associations between healthcare behaviors and sociodemographic, health-related, and cultural factors. **Results:** Regular health check-up utilization was limited despite high self-rated health and health

insurance coverage. Public hospitals and commune health stations were the primary sources of care, while barriers to healthcare access included distance to healthcare facilities, transportation difficulties, and long waiting times. Sociodemographic characteristics, including sex, age, educational attainment, ethnicity, economic status, and health insurance coverage, were not significantly associated with healthcare behaviors ($p > 0.05$). In contrast, recent illness or symptoms, the presence of a primary caregiver, earlier bedtime, use of traditional remedies, and participation in community-based healthcare activities were significantly associated with more favorable healthcare behaviors ($p < 0.05$). **Conclusions:** Healthcare behaviors among older adults in rural Viet Nam were predominantly associated with health experiences and cultural-social factors, while no significant associations were found with sociodemographic characteristics.

Keywords: Older adults; Healthcare behaviors; Cultural factors; Community-based healthcare; Rural Viet Nam; Population ageing

CÁC YẾU TỐ VĂN HÓA ẢNH HƯỞNG ĐẾN THỰC HÀNH CHĂM SÓC SỨC KHỎE Ở NGƯỜI CAO TUỔI TẠI MỘT SỐ XÃ THUỘC TỈNH THÁI NGUYÊN, VIỆT NAM

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TÓM TẮT

Đặt vấn đề: Già hóa dân số đang diễn ra nhanh chóng tại Việt Nam, kéo theo nhu cầu chăm sóc sức khỏe

ngày càng gia tăng ở người cao tuổi. Hành vi chăm sóc sức khỏe của nhóm dân số này không chỉ chịu ảnh hưởng bởi tình trạng sức khỏe mà còn bởi các yếu tố văn hóa và xã hội, đặc biệt trong bối cảnh nông thôn. Tuy nhiên, các bằng chứng thực nghiệm về ảnh hưởng của các yếu tố văn hóa đối với hành vi chăm sóc sức khỏe của người cao tuổi tại Việt Nam vẫn còn hạn chế.

Mục tiêu: Nghiên cứu này nhằm (1) mô tả hành vi chăm sóc sức khỏe của người cao tuổi tại một số xã nông thôn thuộc tỉnh Thái Nguyên, (2) phân tích mối liên quan giữa các yếu tố văn hóa, yếu tố sức khỏe với hành vi chăm sóc sức khỏe của người cao tuổi.

Phương pháp: Một nghiên cứu mô tả cắt ngang được tiến hành trên 528 người từ 60 tuổi trở lên đang sinh sống tại huyện Phú Bình, tỉnh Thái Nguyên, trong giai đoạn từ tháng 12 năm 2024 đến tháng 12 năm 2025. Dữ liệu được thu thập thông qua phỏng vấn trực tiếp bằng bộ câu hỏi cấu trúc. Kiểm định Chi-square được sử dụng để đánh giá mối liên quan giữa hành vi chăm sóc sức khỏe với các yếu tố nhân khẩu học, yếu tố liên quan đến sức khỏe và yếu tố văn hóa. **Kết quả:** Việc sử dụng dịch vụ khám sức khỏe định kỳ còn hạn chế mặc dù người tham gia tự đánh giá sức khỏe tốt và có tỷ lệ tham gia bảo hiểm y tế cao. Bệnh viện công và trạm y tế xã là các nguồn chăm sóc chính, trong khi các rào cản tiếp cận dịch vụ y tế bao gồm khoảng cách đến cơ sở y tế, khó khăn trong di chuyển và thời gian chờ đợi dài. Các đặc điểm nhân khẩu học như giới tính, tuổi, trình độ học vấn, dân tộc, tình trạng kinh tế và bảo hiểm y tế không có mối liên quan có ý nghĩa thống kê với hành vi chăm sóc sức khỏe ($p > 0,05$). Ngược lại, tình trạng có bệnh hoặc triệu chứng gần đây, sự hiện diện của người chăm sóc chính, thói quen đi ngủ sớm,

việc sử dụng các phương pháp điều trị truyền thống và tham gia các hoạt động chăm sóc sức khỏe tại cộng đồng có liên quan có ý nghĩa với hành vi chăm sóc sức khỏe tích cực hơn ($p < 0,05$). **Kết luận:** Hành vi chăm sóc sức khỏe của người cao tuổi ở khu vực nông thôn Việt Nam chủ yếu chịu ảnh hưởng bởi trải nghiệm sức khỏe và các yếu tố văn hóa - xã hội, hơn là chỉ bởi các đặc điểm nhân khẩu học.

Từ khóa: Người cao tuổi; Hành vi chăm sóc sức khỏe; Yếu tố văn hóa; Chăm sóc sức khỏe dựa vào cộng đồng; Nông thôn Việt Nam; Già hóa dân số

INTRODUCTION

Population ageing has become a major global public health challenge. According to the World Health Organization (WHO), the global population aged 60 years and older is projected to reach approximately 2.1 billion by 2050 [1]. Viet Nam is among the fastest-ageing countries worldwide and is expected to enter an aged society by 2036 and a super-aged society by 2050. Notably, this demographic transition is occurring over a period of just over two decades, substantially shorter than that observed in most high-income countries. Older adults experience a high burden of non-communicable diseases, with approximately 70% living with at least one chronic condition such as hypertension, diabetes mellitus, or cardiovascular disease [2,3]. As a result, timely access to and appropriate utilization of healthcare services are critical for maintaining functional ability, quality of life, and longevity in older populations. Health-seeking behaviour among older adults is influenced by a complex interplay of biological, social, and cultural factors, particularly in rural and resource-

constrained settings. In Viet Nam, cultural beliefs and practices - such as the use of traditional remedies, reliance on traditional medicine, and family-based caregiving - remain prevalent and may shape decisions regarding healthcare utilization. Phu Binh District, located in Thai Nguyen Province, is characterized by an agriculture-based economy, ethnic and cultural diversity, and unequal distribution of primary healthcare resources across communes. These contextual factors may contribute to delayed engagement with formal healthcare services and suboptimal management of chronic diseases, thereby increasing the risk of disease progression and complications.

Despite the growing public health importance of population ageing, empirical evidence on the role of cultural factors in shaping healthcare behaviours among older adults in rural Viet Nam remains limited. Addressing this knowledge gap is essential for informing culturally appropriate interventions and strengthening primary healthcare services for ageing populations.

Therefore, this study aims (1) *to describe healthcare behaviours among older adults in selected communes of Thai Nguyen Province, and (2) to determine the influence of selected cultural factors on healthcare behaviours among older adults.*

METHODS

Study population

The study population consisted of individuals aged 60 years and older who held permanent household registration in Phu Binh District, Thai Nguyen Province, Viet Nam.

Inclusion criteria: To assess the influence of cultural factors on healthcare behaviours among older adults,

eligible participants were those who had experienced a health-related condition within one month prior to the interview, possessed adequate communicative ability, and provided informed consent to participate in the study.

Exclusion criteria: Participants were excluded if they declined participation, were unavailable at the time of data collection, or exhibited psychiatric abnormalities, cognitive impairment, or confusion that precluded adequate comprehension or independent communication.

Study period and setting: Data collection was conducted between December 2024 and December 2025 in Phu Binh District, Thai Nguyen Province, Viet Nam.

Study design: A cross-sectional descriptive study design was employed.

Sample size and sampling procedure: The sample size was calculated using the standard formula for estimating a population proportion in a cross-sectional study:

$$n = Z_{(1-\alpha/2)}^2 \frac{p(1-p)}{d^2}$$

Where:

- *n* represents the required sample size;
- *p* denotes the estimated proportion of older adults who experienced a health-related condition within the previous month and engaged in healthcare-related behaviours. In the absence of prior local estimates, *p* was conservatively set at 0.5 to maximize the required sample size;
- *d* represents the desired margin of error, set at 0.05.

Based on these parameters, the minimum required sample size was 384 however, a total of 528 participants were actually recruited.

Data collection instruments and procedures

Data on sociodemographic characteristics and cultural factors related to healthcare practices among older adults were collected using a structured questionnaire specifically designed for this study. Data collection was conducted through face-to-face interviews with eligible participants to ensure completeness and accuracy of responses.

In addition, secondary data were obtained from health management records of older adults maintained by local health authorities in Dong Hy District, Thai Nguyen Province, to supplement and contextualize primary data.

Data collection method: Primary data were collected through direct interviews using the standardized questionnaire administered by trained data collectors.

Data management and analysis: Collected data were reviewed and cleaned prior to data entry. Data were entered using EpiData version 3.1 and subsequently analyzed using SPSS version 22.0. Descriptive statistics were used to summarize study variables. The chi-square test was applied to assess associations between categorical variables, with statistical significance determined at the conventional level.

Ethical considerations: The study protocol was reviewed and approved by the Institutional Ethics Committee of the University of Medicine and Pharmacy, Thai Nguyen University (Approval No. YD2025-SV-115).

RESULTS

Table 1. General characteristics of older adults participating in the study

	Content	Frequency	Percentage (%)
Sex	Male	198	37.5
	Female	330	62.5
Age group	60 - 64	131	24.8
	65 - 69	144	27.3
	70 - 75	123	23.3
	≥ 75	130	24.6
Ethnicity	Kinh	426	80.7
	Ethnic minority	102	19.3
Educational level	Secondary education or below	229	43.4
	Upper secondary education	299	56.6
Occupation	Retired	60	11.4
	Farmer	413	78.2
	Self-employed	41	7.8
	Small trader/homemaker	10	1.9
	Other	4	0.8
Economic status	Poor	4	0.8
	Near-poor	22	4.2
	Adequate livelihood	502	95
Health insurance coverage	Yes	512	97
	No	16	3.0
Housing	Multi-storey house	99	18.8
	Single-storey permanent house	416	78.8
	Wooden house	9	1.7
	Stilt house	4	0.8

The study included 528 older adults, with a higher proportion of women than men (62.5% vs. 37.5%). The most common age group was 65–69 years (27.3%). Most participants were of Kinh ethnicity (80.7%) and had lower secondary education (87.5%). The majority were still economically active (87.8%) and lived in households with adequate economic

status (68.6%). Health insurance coverage was high (97.0%), and most resided in permanent or semi-permanent housing (78.8%).

Table 2. Health status and health check-up behaviors among older adults in the community

	Content	Frequency	Percentage (%)
Self-rated health status	< 5	36	6.8
	≥ 5	492	93.2
Regular health check-ups	Yes	229	43.4
	No	299	56.6
Presence of chronic conditions	Yes	350	66.3
	No	178	33.7
Diseases/symptoms experienced during the past month	Headache	228	43.2
	Shortness of breath	28	5.3
	Musculoskeletal pain	228	43.2
	Memory impairment	16	3.0
	Sleep disturbances	134	25.4
	Weight loss	7	1.3
	Other	2	0.4
	No significant symptoms	120	22.7
Acquired chronic diseases in older adults	Hypertension	229	43.4
	Diabetes mellitus	35	6.6
	Cardiovascular diseases	36	6.8
	Musculoskeletal disorders	145	27.5
	Respiratory diseases	32	6.1
	Dementia	3	0.6
	Other conditions	41	7.8

Most older adults reported a self-rated health score ≥ 5 (93.2%), while 6.8% rated their health < 5 . Regular health check-ups were reported by 43.4%, whereas 56.6% did not attend routine examinations. Hypertension was the most common chronic condition (43.4%), followed by musculoskeletal disorders

(27.5%). The most frequently reported symptoms in the past month were headache and musculoskeletal pain (both 43.2%).

Table 3. Healthcare utilization and treatment practices among older adults

	Content	Frequency	Percentage (%)
Healthcare facility utilized	Commune health station	220	41.7
	Public hospital	262	49.6
	Private clinic	23	4.4
Barriers to healthcare access	Long distance to healthcare facilities	96	18.2
	High healthcare costs	54	10.2
	Long waiting time	56	10.6
	Lack of accompanying caregiver	75	14.2
	Other	247	46.8
Healthcare approaches commonly used	Modern medicine	329	62.3
	Traditional medicine	11	2.1
	Combination of modern and traditional medicine	176	33.3
Preferences for health improvement	Home-based medical care	213	40.3
	Lifestyle and dietary counseling	82	15.5
	Financial support for healthcare visits	99	18.8
	Participation in community-based healthcare programs	110	20.8
	Other	24	4.5

Older adults mainly sought care at public hospitals (49.6%) and commune health stations (41.7%). Common barriers included distance, transportation, and waiting time (46.8%), mobility difficulties (32.4%), and financial constraints (10.2%). Modern medicine was the predominant approach (62.3%), followed by combined use with traditional medicine (33.3%). The main support needs were home-based care (40.3%), community programs (20.8%), financial support (18.8%), and lifestyle counseling (15.5%).

Table 4. Cultural factors related to healthcare among older adults

	Content	Frequency	Percentage (%)
Living arrangement	Living alone	63	11.9
	Living with children or grandchildren	434	82.2
	Nursing home/social protection center	1	0.2
	Other	30	5.7
Presence of a primary caregiver		466	88.3
Frequent consumption of fried foods		186	35.2
Habitual high salt intake		68	12.9
Habitual consumption of sweet foods		95	18.0
Cooking oil/fat used	Vegetable oil	278	52.7
	Animal fat	172	32.6
	Both vegetable oil and animal fat	78	14.8
Bedtime	Before 22:00	389	73.7
	After 22:00	110	20.8
	After 23:00	29	5.5
Use of traditional medicine	Regularly	26	4.9
	Occasionally	272	51.5
	Never	230	43.7

The majority of older adults lived with their children or grandchildren (82.2%), while 11.7% lived alone, 0.2% resided in nursing homes, and 5.7% reported other living arrangements. Regarding dietary habits, 35.2% of participants reported frequent consumption of fried foods, 18.0% reported habitual intake of sweet foods, and 12.9% reported a preference for salty foods. Bedtime before 22:00 was most common (73.7%), whereas 26.3% reported going to bed after 22:00. Approximately 4.9% of participants reported using traditional remedies or folk practices for healthcare.

Table 5. Association between sociodemographic characteristics and healthcare behaviors among older adults

Characteristics		Poor behavior	Good behavior	χ^2, p
Sex	Male	52 (39.1%)	146 (37%)	$\chi^2 = 0.194$ $p > 0.05$
	Female	249 (60.9%)	81(63%)	
Age group	60 - 64	27 (20.3%)	104 (26.3%)	$\chi^2 = 4.423$ $p > 0.05$
	65 - 69	34 (25.6%)	110 (27.8%)	
	70 - 74	39 (29.3%)	84 (21.3%)	
	≥ 75	33 (24.8%)	97 (24.6%)	
Educational level	Secondary education or below	67 (50.4%)	162 (41%)	$\chi^2 = 3.552$ $p > 0.05$
	Upper secondary education	66 (49.6%)	233 (59%)	
Ethnicity	Kinh	107 (80.5%)	319 (80.8%)	$\chi^2 = 0.006$ $p > 0.05$
	Ethnic minority	26 (19.5%)	76 (19.2%)	
Economic status	Poor/near-poor	9 (6.8%)	17 (4.3%)	$\chi^2 = 1.289$ $p > 0.05$
	Adequate livelihood	124 (93.2%)	378 (95.7%)	
Health insurance coverage	Yes	128 (96.2%)	385 (97.5%)	$\chi^2 = 3.552$ $p > 0.05$
	No	5 (3.8%)	10 (2.5%)	

No statistically significant associations were observed between healthcare behaviors and sex ($\chi^2 = 0.194, p > 0.05$) or age group ($\chi^2 = 4.423, p > 0.05$). Educational attainment showed differing distributions of favorable and unfavorable behaviors; however, this difference was not statistically significant ($\chi^2 = 3.552, p > 0.05$). Similarly, ethnicity and economic status were not significantly associated with healthcare behaviors ($\chi^2 = 0.006$ and 1.289 , respectively; $p > 0.05$). Health insurance coverage also showed no significant association with healthcare behaviors ($\chi^2 = 3.552, p > 0.05$), despite the high insurance coverage rate in the study population.

Table 6. Association between cultural and health-related factors and healthcare behaviors among older adults

Characteristics		Poor behavior	Good behavior	χ^2, p
Presence of chronic conditions	Yes	97 (72.9%)	253 (64.1%)	$\chi^2 = 3.512$ p > 0.05
	No	36 (27.1%)	142 (35.9%)	
Diseases/symptoms during the past month	Yes	22 (16.5%)	101 (25.6%)	$\chi^2 = 4.539$ p < 0.05
	No	111 (83.5%)	294 (74.4%)	
Self-rated health status	< 5	25 (18.8%)	75 (19.2%)	$\chi^2 = 0.013$ p > 0.05
	≥ 5	108 (81.2%)	319 (80.8%)	
Presence of a primary caregiver	Yes	110 (82.7%)	356 (90.1%)	$\chi^2 = 5.286$ p < 0.05
	No	23 (17.3%)	39 (9.9%)	
Bedtime	Before 22:00	73 (54.9%)	316 (80%)	$\chi^2 = 32.353$ p < 0.05
	After 22:00	60 (45.1%)	79 (20%)	
Use of traditional medicine	Yes	92 (69.2%)	207 (52.4%)	$\chi^2 = 11.39$ p < 0.05
	No	41 (30.8%)	188 (47.6%)	
Participation in community-based healthcare activities	Yes	23 (17.3%)	242 (61.3%)	$\chi^2 = 76.956$ p < 0.05
	No	110 (2,7%)	154 (8,7%)	

No significant association was observed between healthcare behaviors and the presence of chronic conditions or self-rated health status (p > 0.05). Experiencing diseases or symptoms during the past month was significantly associated with healthcare behaviors ($\chi^2 = 4.539$, p < 0.05). Older adults with a primary caregiver were more likely to exhibit favorable healthcare behaviors ($\chi^2 = 5.286$, p < 0.05). Earlier bedtime (before 22:00) showed a strong association with favorable behaviors ($\chi^2 = 32.353$, p < 0.05). Use of traditional medicine was also significantly associated with healthcare behaviors ($\chi^2 = 11.39$, p < 0.05). Participation in community-based healthcare activities demonstrated the strongest association with favorable behaviors ($\chi^2 = 76.956$, p < 0.05).

DISCUSSION

This study provides empirical evidence on healthcare behaviors among older adults in a rural setting of northern Viet Nam. The findings indicate that although the majority of participants reported relatively good self-rated health, regular health check-up attendance remained suboptimal, with more than half of older adults not undergoing periodic health examinations. This gap between perceived health status and preventive healthcare utilization has been documented in previous studies and may reflect a tendency among older adults to seek care primarily when symptoms become apparent rather than engaging in routine preventive services.

Public hospitals and commune health stations were the most commonly utilized healthcare facilities, highlighting the continued central role of the public health system in meeting the healthcare needs of older populations. However, reported barriers such as distance to healthcare facilities, transportation difficulties, long waiting times, and financial constraints underscore persistent structural challenges in healthcare access, particularly in rural areas. Despite the high coverage of health insurance, insurance enrollment alone did not translate into improved healthcare behaviors, suggesting that non-financial barriers remain influential [4].

In terms of healthcare practices, modern medicine was the predominant approach, although a substantial proportion of participants reported combining modern and traditional medicine. This pattern reflects the pluralistic nature of healthcare utilization in Viet Nam and indicates that healthcare behaviors among older

adults are shaped by both biomedical and cultural traditions [5,6].

Regarding the second objective, the study found that several cultural and health-related factors were significantly associated with healthcare behaviors. Older adults who had experienced symptoms in the previous month were more likely to exhibit favorable healthcare behaviors, suggesting that symptom perception may act as a key trigger for healthcare-seeking. Similarly, the presence of a primary caregiver was positively associated with favorable behaviors, highlighting the importance of family and social support in facilitating healthcare utilization among older adults.

Sleep habits also emerged as a significant factor, with earlier bedtime associated with more favorable healthcare behaviors. This finding may reflect broader lifestyle patterns related to health consciousness and daily routines, although the cross-sectional design precludes causal interpretation [7]. The use of traditional remedies was significantly associated with healthcare behaviors, indicating that cultural health practices remain an integral component of healthcare decision-making among older adults. Rather than being viewed solely as a barrier, traditional practices may coexist with modern healthcare and influence patterns of care-seeking.

Notably, participation in community-based healthcare activities demonstrated the strongest association with favorable healthcare behaviors. This finding underscores the potential role of community-based interventions and social engagement in promoting positive healthcare behaviors among older adults. In contrast, sociodemographic characteristics such

as sex, age group, educational attainment, ethnicity, economic status, and health insurance coverage were not significantly associated with healthcare behaviors in this sample. This suggests that healthcare behaviors may be less strongly driven by individual demographic characteristics and more influenced by social context, support systems, and lived health experiences [8]. Overall, the findings suggest that healthcare behaviors among older adults are shaped by a complex interplay of health status, cultural practices, and social support rather than by sociodemographic factors alone. These results highlight the need for interventions that go beyond improving health insurance coverage and instead focus on strengthening primary healthcare services, enhancing community-based healthcare programs, and integrating culturally appropriate health education. Longitudinal studies and multivariable analyses are warranted to further elucidate causal pathways and to inform targeted public health strategies for ageing populations in Viet Nam and comparable settings.

CONCLUSION

This study found that although older adults in rural Thai Nguyen reported relatively good self-rated health, the use of preventive services, particularly regular check-ups, remained limited, with ongoing barriers to access. Healthcare behaviors were associated with health experiences and cultural–social factors rather than sociodemographic characteristics. These findings highlight the need to integrate cultural and community-based approaches, strengthen caregiver support, and promote health awareness to improve healthcare behaviors among older adults.

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