

Factors Influencing Health Social Media Use Habits Behavior among Older Adults in a Thai Provincial Setting: A Cross-Sectional Study

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ABSTRACT

Background: As Thailand rapidly transitions into a fully aged society, understanding digital health communication channels is critical. Despite social media's potential for promoting older adults' self-care, the digital divide remains a significant barrier. This study examined factors influencing health social media use habits behavior among older adults in a Thai Provincial setting to inform targeted health interventions.

Methods: A cross-sectional study design was employed, involving 402 community-dwelling older adults in Samut Songkhram Province, Thailand. Data were analyzed using descriptive statistics to summarize participant characteristics and stepwise multiple regression analysis to identify significant predictors of social media usage behavior.

Results: Participants demonstrated a high level of social media usage ($M=2.58$, $SD=0.55$). Stepwise regression identified highest education level, age, chronic conditions, gender, and monthly income as significant predictors ($p<0.05$), collectively explaining 19.65% of the variance in social media use behavior.

Conclusion: Socioeconomic and health-related factors significantly shape social media engagement among Thai older adults. These findings underscore the need for tailored digital health strategies that account for highest education level, age, chronic disease, gender, and average monthly income. Addressing these determinants can help bridge the digital divide, enhance access to quality health information, and ultimately support healthy aging in resource-limited settings.

Keywords: Social Media, Digital Health, Health Promotion, Older Adults, Thailand

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INTRODUCTION

Population ageing has become one of the most significant demographic transitions of the 21st century.¹ Improvements in survival and living conditions have led to a steady increase in both the number and proportion of older adults worldwide.² By 2030, one in six individuals globally will be aged 60 years or older, increasing from 1 billion in 2020 to 1.4 billion, and projected to reach 2.1 billion by 2050.³ The population aged 80 years and above is also expected to triple during the same period.³ Although population ageing first emerged in high-income countries, the most rapid growth is now occurring in low- and middle-income countries, which are projected to account for nearly two-thirds of the global older population by 2050.⁴ This demographic transition presents important challenges for health systems, social structures, and policy planning worldwide.¹ Number of older persons in the Asia-Pacific region is projected to increase from approximately 535 million in 2015 to about 1.3 billion by 2050, with one in four people expected to be aged 60 years or older by 2050.⁵

Thailand is among the fastest-ageing countries in Southeast Asia. Population projections indicate that the number of people aged 60 years and older in Thailand will increase from approximately 12 million (18.1%) in 2020 to about 20.5 million (31.4%) by 2040.⁶ This demographic shift is accompanied by an increasing burden of chronic non-communicable diseases and a growing demand for long-term care services among older adults.¹ At the provincial level, ageing trends are also evident. In Samut Songkhram Province, older adults represent a substantial proportion of the population. Recent statistics indicate that approximately 26.56% of the provincial population are aged 60 years and older, reflecting the rapid ageing trend in the area.⁷

Alongside demographic change, rapid digital transformation has reshaped how individuals access information, communicate, and engage with health services. Social media platforms are increasingly used for health promotion, public health communication, and the dissemination of health information.⁸ However, older adults often experience a digital divide that extends beyond access to include limitations in digital skills, health literacy, and confidence in evaluating online information.^{9,10} Evidence suggests that social media use among older adults is influenced by sociodemographic and health-related factors, including age, education, income, and perceived usefulness of digital technologies. Nevertheless, engagement remains uneven, and many older adults use social media primarily for communication rather than health-related purposes. Therefore, this study aims to examine factors influencing health-related social media use behavior among older adults in a Thai provincial setting.

METHODOLOGY

Study design and Participants: This cross-sectional descriptive study examined health social media use habits behavior among older adults in Samut

Songkhram Province, Thailand. Data were collected between October and November 2025. The study population comprised older adults aged 60 years and above residing in Samut Songkhram Province, which includes three districts: Mueang Samut Songkhram, Amphawa, and Bang Khonthi. In 2025, the total older adult's population in the province was 51,069 individuals.¹¹

The sample size was calculated using the Krejcie and Morgan formula, assuming a population proportion of 0.50, a margin of error of 5%, and a confidence level of 95%.¹² The required sample size was 381.15; therefore, 382 participants were initially selected. To compensate for potential non-response and data collection errors, an additional 5% was added, resulting in a final sample size of 402 participants.

To address the adequacy of this sample size for multiple regression analysis, we applied the widely accepted guideline recommending a minimum of 10-20 participants per predictor variable.¹³ With 8 predictor variables in our model (gender, age, marital status, educational level, occupation, income, social media device usage, and underlying medical conditions), the minimum required sample size ranged from 80 to 160 participants. Our actual sample of 402 participants substantially exceeds this requirement, ensuring adequate statistical power (>80%) for detecting medium effect sizes in the regression model. The inclusion criteria required participants to be residents of Samut Songkhram Province, aged 60 years or older, and able to read and write Thai. Exclusion criteria included individuals with visual or hearing impairments, non-Thai nationality, and those who were bedridden.

A multistage sampling technique was employed. In the first stage, proportionate stratified sampling was used to allocate participants according to the older adult's population distribution across districts: 204 participants from Mueang Samut Songkhram District, 121 from Amphawa District, and 77 from Bang Khonthi District. The second stage involved simple random sampling via a lottery method without replacement, where five sub-districts were selected from each district, yielding a total of 15 sub-districts. In the final stage, older adult participants within each selected sub-district were recruited using convenience sampling. Eligible participants were approached through community settings and local networks, such as community centers or village health volunteer contacts, and those who met the inclusion criteria and agreed to participate were included in the study (Figure 1).

Instruments: The questionnaire used in this study was developed based on a comprehensive literature review and adapted from Lakshmi Buasamrit.¹⁴ The instrument consisted of two main sections.

Part 1: Personal information comprised eight items assessing participants' demographic characteristics, including gender, age, marital status, educational lev-

el, occupation, income, social media device usage, and underlying medical conditions.

Part 2: Health social media use habits behavior refers to the various patterns and characteristics of social media engagement among older adults. This is assessed through a total of 22 items, categorized into the following four domains: 1) Information Retrieval and Exchange (5 items): This involves the use of various social media platforms and applications to receive, send, and search for both general news and health-related information. 2) Usage Duration and

Time Allocation (7 items): This refers to the amount of time spent daily and the duration per session on social media platforms to search for specific knowledge or topics of interest. 3) Interpersonal Health Communication (5 items): This focuses on utilizing social media as a communication channel to interact, exchange experiences, or consult with others regarding healthcare and wellness. 4) General and Recreational Purposes (5 items): This covers usage for other objectives beyond health, such as entertainment, social networking, and various relaxation activities to enhance personal well-being (Figure 2).

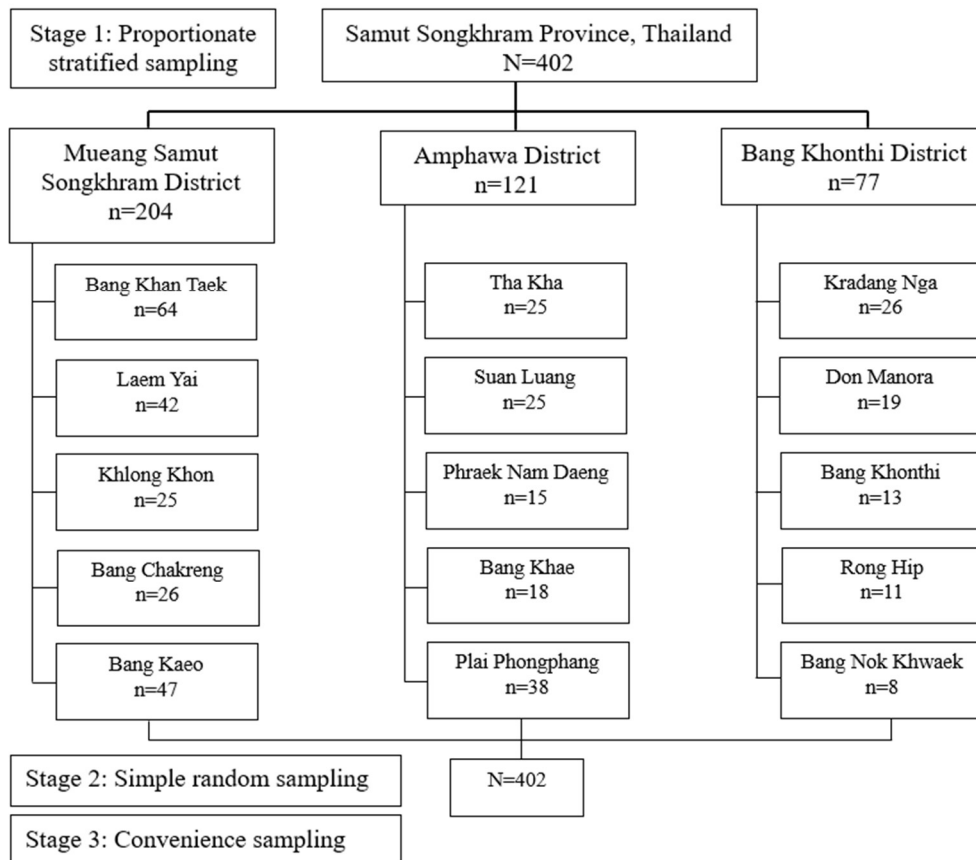


Figure 1: Distribution of the study sample

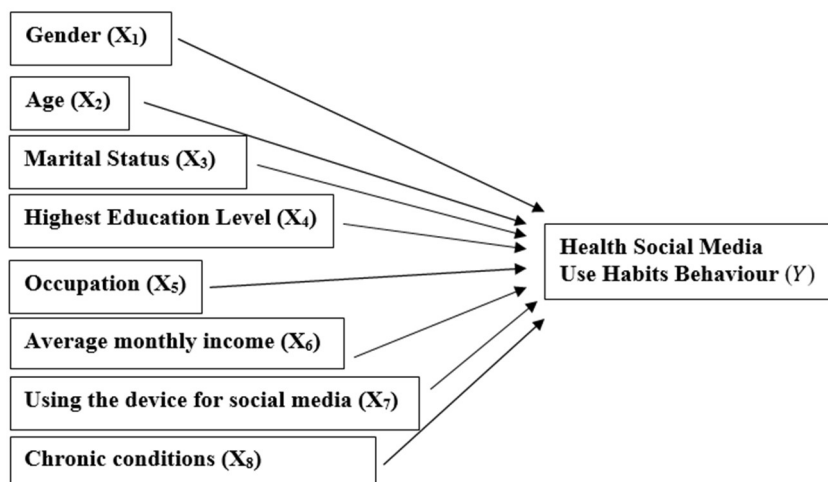


Figure 2: Figure depicting the regression model

The questionnaire employed a closed-ended format using a four-point Likert-type scale: regularly, frequently, occasionally, and never. Responses were scored to reflect the level of social media use behavior, with higher scores indicating more frequent use. Mean score interpretation was categorized as follows: 3.51-4.00 indicated a very high level of behavior, 2.51-3.50 a high level, 1.51-2.50 a low level, and 1.00-1.50 a very low level.

The content validity of the research instrument was evaluated by three experts, including a specialist in behavioral science, a professional nurse specializing in gerontological nursing, and an expert in research methodology. The Index of Item-Objective Congruence (IOC) was employed to assess the validity, and the instrument was subsequently refined based on the experts' recommendations. The resulting IOC values for the sub-scales were 0.93 and 0.96, respectively, indicating high content validity. The questionnaire was pilot-tested with 34 older adults who had characteristics similar to those of the study sample. Reliability analysis demonstrated excellent internal consistency. The research instrument demonstrated excellent internal consistency, with an overall Cronbach's alpha coefficient of 0.97. The reliability analysis for each sub-scale was as follows: Information Retrieval and Exchange ($\alpha = 0.97$), Usage Duration and Time Allocation ($\alpha = 0.96$), Interpersonal Health Communication ($\alpha = 0.96$), and General and Recreational Purposes ($\alpha = 0.98$).

This research was approved by the Human Research Ethics Committee of Suan Sunanda Rajabhat University (COE No. 2-452/2025), dated October 2, 2025. Participants were informed that their participation was entirely voluntary and that they provided written informed consent prior to data collection. Furthermore, they were assured of their right to withdraw from the study at any time without any negative consequences.

Statistical analysis: Statistical analyses were conducted using IBM SPSS version 26.0. Descriptive statistics were applied to summarize the general characteristics of the sample, including frequencies, minimum and maximum values, percentages, the median, the arithmetic mean (M), and the standard deviation (S.D.). Multicollinearity was assessed prior to regression analysis using the Variance Inflation Factor (VIF). VIF values were below 2, indicating no multicollinearity concerns. Stepwise multiple regression analysis was subsequently conducted to identify factors influencing health social media use habits behavior among older adults. Statistical significance was set at $p < 0.05$.

RESULTS

The sample comprised 402 older adults, of whom the majority were male (56.47%). Most participants were classified as older adults, with a mean age of 64.57 years (S.D. = 3.17). The majority were married (69.40%), had an educational level below secondary

education (45.27%), and private business (36.82%). Nearly half of the participants reported a monthly income of less than 15,000 THB (48.51%). Most participants reported mobile phone use (98.01%), and more than half indicated that they had no underlying chronic conditions (54.73%) (Table 1).

The results of the analysis of health social media use habits behavior are high level (M = 2.58, S.D. = 0.55). are classified by aspect. When looking at each aspect, it was found that the first order was the use of social media for other purposes (M = 2.99, S.D. = 0.72), followed by the use of various types of social media (M = 2.79, S.D. = 0.63), followed by the duration of social media use (M = 2.35, S.D. = 0.57), and the last was the use of online media to communicate with other people (M = 2.17, S.D. = 0.60) (Table 2).

Factors associated with health social media use habits behavior among older adults using Spearman's Rank correlation coefficient. It was found that the factors with a p-value < 0.05 were Age, Highest education level, and were thus selected for inclusion in the Stepwise Multiple Linear Regression (Table 3).

Table 1: Demographic variables of participants (n = 402)

Demographic variables	Participants(%)
Gender	
Male	227 (56.47)
Female	175 (43.53)
Age [Mean \pm S.D.]	64.57 \pm 3.17
Marital Status	
Single	61 (15.17)
Married	279 (69.40)
Widowed	62 (15.42)
Highest Education Level	
Below secondary education	182 (45.27)
Secondary School/Vocational Certificate	133 (33.08)
Associate Degree/High Vocational Certi	33 (8.21)
Bachelor's degree	47 (11.69)
Higher than Bachelor's degree	7 (1.74)
Occupation	
Trade	143 (35.57)
Private Business	148 (36.82)
Unemployed	44 (10.95)
Farmer	23 (5.72)
Retired Govt Official/ Pensioner	35 (8.71)
General Contractor	9 (2.24)
Average monthly income	
Less than 15,000 THB	195 (48.51)
15,000-25,000 THB	171 (42.54)
25,001-35,000 THB	19 (4.73)
More 35,000 THB	17 (4.23)
Using the device for social media	
Mobile phones	394 (98.01)
Tablet	6 (1.49)
Computers	2 (0.05)
Chronic conditions	
None	220 (54.73)
Yes	182 (45.27)

*1 USD \approx 31.55 THB (Dec. 2025 rate)

Table 2: Health Social Media Use Habits Behavior of participants (n = 402)

Variables	Mean±SD	Level
Different types of social media use	2.79±0.63	high
Length of time on social media	2.35±0.57	low
Using online media to communicate with other people	2.17±0.60	low
Other Uses	2.99±0.72	high
Overview of social media usage behavior	2.58±0.55	high

SD - Standard Deviation

Table 3: Factors Associated with Health Social Media Use Habits Behavior Among Older Adults Using Spearman's Rank Correlation Coefficient (n = 402)

Variables	r_s	p-value
Gender (X ₁)	-0.088	0.079
Age (X ₂)	-0.248	0.000*
Marital Status (X ₃)	0.037	0.458
Highest education level (X ₄)	0.202	0.000*
Occupation (X ₅)	0.104	0.036*
Average monthly income (X ₆)	0.097	0.053
Using the device for social media (X ₇)	0.088	0.077
Chronic conditions (X ₈)	0.143	0.004*

*p-value < 0.05 selected for inclusion in the Stepwise Multiple Linear Regression analysis.

The stepwise multiple regression analysis identified several variables influencing health social media use habits behavior among older adults in a Thai provincial setting, including highest education level, age, chronic conditions, gender, and average monthly income. Collectively these variables explained 20.65% of the variance in health social media use habits behavior ($R^2 = 0.2065$). After adjustment for the number of predictors, the adjusted R^2 was 0.1965, indicating that the model accounted for approximately 19.65% of the variance in health-related social media use among older adults. The overall regression model was statistically significant ($p < 0.05$). The regression equation is presented in (Table 4).

DISCUSSION

Participants demonstrated a high level of health social media use habits behavior ($M = 2.58$, $SD = 0.55$). This may be explained by the fact that most participants were young-old adults aged 60-69 years who primarily used smartphones and were still engaged in self-employment. Such socioeconomic characteristics suggest that many older adults remain economically active and regularly use digital technologies in their daily lives, facilitating easier access to health information.

Table 4. Factors Influencing Health Social Media Use Habits Behavior Among Older Adults in a Thai Provincial Setting: Stepwise Multiple Regression Analysis (n = 402)

Variables	B	$\hat{\beta}$	t	95% CI of B	VIF	p-value
Constant	2.755		16.919	2.435 to 3.075		0.000*
Highest education level (X ₄)	0.125	0.245	4.882	0.074 to 0.175	1.257	0.000*
Age (X ₂)	-0.639	-0.290	-6.380	-0.836 to -0.442	1.028	0.000*
Chronic conditions (X ₈)	0.219	0.200	4.349	0.210 to 0.318	1.054	0.000*
Gender (X ₁)	-0.153	-0.139	-3.038	-0.252 to -0.054	1.040	0.003*
Average monthly income (X ₆)	0.098	0.137	2.696	0.027 to 0.170	1.284	0.007*

$$R = 0.4545, R^2 = 0.2065, R^2_{adj} = 0.1965, F = 20.6160, SE = 0.4899$$

$$\hat{Y} = 2.755 + 0.245 (X_4) - 0.290 (X_2) + 0.200 (X_8) - 0.139 (X_1) + 0.137 (X_6)$$

*Significant at the 0.05 level

Smartphones and social media platforms, particularly Line and Facebook, have become key channels for older adults to search for health information and communicate with others.^{15,16} These platforms are widely used because they are accessible, convenient, and popular in Thai society.

This finding is consistent with previous studies indicating that economically active older adults tend to have greater access to digital technologies and use the internet for health-related purposes more frequently.^{17,18}

Several factors influencing health social media use habits behavior among older adults in Samut Songkhram Province were identified, including highest education level, age, chronic conditions, gender, and average monthly income, with educational attainment exerting the strongest influence. Collectively, these factors explained approximately 19.65% of

the variance in social media use habits behavior among older adults in the province.

Highest educational level was a significant predictor of health social media use habits behavior among older adults. This may be attributed to the fact that individuals with higher educational attainment generally possess better digital literacy and are more likely to use the internet and social media to obtain health information and engage with digital health resources.^{15,19}

In addition, social media applications are widely used and designed to be user-friendly, requiring relatively limited technical skills. Consequently, even older adults with lower educational backgrounds are able to access, receive, and share health-related information through these platforms with relative ease.¹⁸

Age was also a significant predictor of health social media use habits behavior. This may be explained by age-related physical and functional changes. As individuals age, many older adults experience declines in vision, hearing, and motor dexterity, which can make the use of digital devices and online platforms more challenging. Furthermore, many older adults did not grow up with digital technologies and therefore are not considered digital natives, resulting in lower familiarity with digital tools.²⁰ This limitation is associated with reduced engagement with internet and social media platforms.^{21,22} In contrast, younger older adults tend to have better digital skills and use the internet more frequently for informational, social, and practical online activities.^{23,24}

Chronic conditions were another significant predictor of health social media use habits behavior. Older adults with chronic diseases often have greater needs for health information, continuous monitoring, medication adherence, and disease-specific knowledge.^{25,26} Consequently, they are more likely to seek health-related information through digital platforms. Social media provides accessible channels for connecting with peers, sharing experiences, and receiving health updates.^{27,28} These platforms can complement formal healthcare services by supporting information exchange and ongoing health management.²⁹

Gender was also associated with health social media use habits behavior. Older women often assume caregiving roles, and gender-related social norms encourage them to seek health information for themselves and their family members.^{30,31} These responsibilities may motivate women to actively search for health-related information through digital platforms. Women also tend to demonstrate higher health literacy and greater willingness to participate in online health communities. In contrast, older men may perceive health information seeking as inconsistent with traditional masculine norms and may prefer more formal or technical information sources, resulting in lower engagement with health-related social media.^{32,33}

Average monthly income was another significant predictor. Older adults with higher income levels have greater financial capacity to purchase smartphones, digital devices, and internet services. In addition, financial stability may facilitate access to digital resources and reduce technology-related barriers, enabling greater use of social media and online platforms for health-related information and communication.^{34,35} Conversely, older adults with limited income may face economic barriers that restrict device ownership and internet connectivity, thereby limiting their engagement with online health information.³⁴

Together, these five predictors explained approximately 19.65% of the variance in health social media use habits behavior among older adults in a Thai provincial setting. This modest R^2 suggests that while demographic factors are important, they do not fully

explain digital health behavior. In behavioral research, such values are common because human habits are influenced by multiple complex factors.¹³ Potential factors explaining the remaining variance may include eHealth literacy,^{22,32} social capital and community trust,^{30,32} and family support networks that facilitate surrogate internet use.³¹ Psychological aspects such as the need for social connectivity and the reduction of social isolation may also play important roles in shaping digital health habits.³⁴ Furthermore, the cross-sectional design of this study limits the ability to establish causal relationships. Additionally, data were collected via self-reported questionnaires, which may be subject to recall bias and social desirability bias. Future research should address these limitations by conducting longitudinal studies to examine changes in social media use as health conditions evolve over time.²⁹ In addition, intervention studies focusing on community-based digital literacy programs are recommended to evaluate how structured training can enhance health promotion outcomes among older adults.³⁵ Further research should also explore differences between active and passive social media engagement and examine the role of specific digital health technologies in supporting healthy aging within local contexts.³⁴

CONCLUSION

This study demonstrates high health social media use habits behavior among older adults in a Thai provincial setting. Five key predictors—educational attainment, age, chronic conditions, gender, and income—collectively influence these habits, with education being the most significant. These findings highlight that sociodemographic and health factors are fundamental in shaping digital engagement. To address disparities, public health policies should prioritize community-based digital literacy programmes, specifically tailored for seniors with lower education and income levels. Such initiatives should leverage familiar platforms like Line and Facebook to disseminate reliable health information effectively. Furthermore, healthcare organizations must design user-friendly digital services that accommodate the diverse cognitive and technical needs of older populations. Strengthening these targeted digital health education efforts and ensuring equitable technology access will empower older adults to manage their health more effectively, ultimately fostering sustainable healthy ageing within provincial communities.

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Availability of Data: The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Declaration of Non-use of Generative AI Tools: This article was prepared without the use of generative AI tools for content creation, analysis, or data generation. All findings and interpretations are based solely on the authors' independent work and expertise.

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